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Sustainability
Report

ESG



桃園國際機場股份有限公司
Taoyuan International Airport Corporation Ltd.

CONTENTS

About this Report.....	003
Letter from the Chairman	005
2021 Honorable achievements..	006
2021 ESG actions at a glance	007
Sustainable development.....	008
Stakeholder communication and material topics of 2021	011

Chapter 1

Deepening governance and safeguarding the spirit of ethics .. 016

1.1 About Taiwan Taoyuan International Airport	018
1.2 International footprint	021
1.3 Deepening governance	024
1.4 Safeguarding ethics and legal compliance	028
1.5 Supplier management	036

Chapter 2

Sound operations and compliance with safety guidelines 038 |

2.1 Risk management.....	040
2.2 Airport safety management.....	042
2.3 Pandemic prevention policy.....	057

Chapter 3

Active listening to create in-depth service 062 |

3.1 Service quality	064
3.2 Smart innovation.....	075
3.3 Air cargo development.....	080

Chapter 4

Low carbon commitment with substantive sustainability acts..... 085 |

4.1 Remarkable achievements in sustainability	087
4.2 Response to climate change	088
4.3 Green friendly airport.....	094
4.4 Environmental sustainability management	096

Chapter 5

Friendly workplace, creating co-prosperity value 101 |

5.1 Human resource	103
5.2 Safe and healthy workplace.....	107
5.3 Talent development and benefits ..	116
5.4 Give back to the society and contribution	123

Appendix

Appendix I GRI Standard Reference	129
Appendix II SASB Standard Comparison Table	133
Appendix III Independent Third-party Assurance Statement	134



About this Report

As the gateway to Taiwan, Taoyuan International Airport Corporation Ltd. ("TIAC", "the Company", "we") upholds the five core values of "Safety, Integrity, Passion, Innovation, and Professional" as the cornerstone of its operations, and is committed to providing quality and innovative services to passengers. In addition to business operations and corporate governance, the Company also places greater emphasis on economic, social, environmental, and employee development and care, while establishing a smooth communication channel with stakeholders. Therefore, starting from 2020, TIAC voluntarily publishes a sustainability report every year to help stakeholders understand its sustainability strategy and performance, and to serve as a channel for stakeholder engagement.

We are committed to creating a sustainable and sound business environment, playing the role for Taiwan as the regional hub in East Asia, promoting Taiwan Taoyuan International Airport (TTIA) as the starting point of Taiwan's connection to the world, creating national glory, and driving Taiwan forward.

Reporting Period, Boundary and Scope

The boundary of this Report is Taiwan Taoyuan International Airport. This Report covers the economic, environmental, and social performance of TIAC for the period from January 1st through December 31st of 2021

Basis for Data Calculation

The Company's financial data are based on the preliminary accounting results prepared by the subordinate units of TIAC. The final accounting results are subject to the audit authority's approval and are presented in TWD. The Company's ISO 14001 environmental management system, ISO 14064-1 greenhouse gas inventory, and ISO 50001 energy management system have all been verified by third-party verification body.

Report Writing Guidelines and Principles

TIAC took reference from the Sustainability Strategy for Airports Worldwide published by the Airports Council International (ACI) for sustainable development issues and guidelines, collected and studied important economic, environmental, and social issues both domestically and internationally, understood stakeholders' concerns through materiality analysis, and invited various divisions and offices for interviews to understand the efficacy of implementation, and made the relevant issues the core disclosure focus of this Report.

TIAC compiled this Report in accordance with two mainstream international sustainability reporting standards, namely the GRI Standards: Core option published by the Global Reporting Initiative (GRI), and the Professional Commercial Services standards from SASB.





Report quality management process

Report Compilation

After confirming the integrity and accuracy of the information for this Report, each unit will provide it to the Executive Secretarial Unit of the CSR Committee (Corporate Development Division) for consolidation and compilation as a first draft.

Internal Review

The Executive Secretarial Unit of the CSR Committee (Corporate Development Division) will send the first draft of this Report to each unit for review, including confirmation of the accuracy of information and completeness of disclosure.

External Review

In order to strengthen the quality and reliability of the Company's information disclosure, TIAC has appointed an international third-party verification institution, DNV, to conduct an external verification of this Report in accordance with the AA1000 Assurance Standard v3 (AA1000AS v3) and the DNV VeriSustain™ Protocol to ensure compliance with:

- GRI Standards Core Options
- SASB Professional Commercial Services

Finalization

This Report was submitted to the CSR Committee for review and finalization based on the comments of external verification by an independent third-party verification body.

Note: The Company plans to amend the "Rules for the Establishment of CSR Committee" in the second half of 2022 and rename the CSR Committee as the Sustainable Development Committee.

Issue time

The Report is issued periodically and the information is disclosed in the Sustainability section of the Company's official website.

Current issue: Issued in August 2022

Previous issue: Issued in August 2021

Expected next issue: Issued in August 2023

Contact information

If you have any suggestions regarding the contents of this Report, please feel free to contact us.

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Letter from the Chairman

COVID-19 has been around for 2 years, and TTIA has taken up the responsibility of guarding the border and has not dared to slacken off. We have joined hands with the Airport Services Alliance to help contain the pandemic, and have been a front line of the national pandemic prevention team, working closely with the Central Epidemic Command Center. While adhering to the highest requirements for pandemic prevention, we still insist on making passengers feel the warmth of our services in every detail. It is exactly this dedicated attitude that has earned us the "The Voice of the Customer Recognition" award from ACI for two consecutive years, the "Corporate Sustainability Awards" from the Taiwan Corporate Sustainability Awards (TCSA), and the "Asia's Report of the Year" Special Award from the Asia Sustainability Report Awards (ASRA) and other recognition from various domestic and international organizations.

In the face of COVID-19, we have proposed five major operational priorities: "basic operations", "pandemic prevention", "bailout", "stimulus", and "renovation", and continue to promote various infrastructure projects internally to strengthen operational safety and service quality, while strictly implementing pandemic prevention work externally. As the operator unit of TTIA, we have taken the lead in assisting aviation-related industries at TTIA in their activities to achieve the goal of revitalizing the airport economy.

In addition, TIAC continues to focus on environment, society and governance (ESG) goals in accordance with the United Nations Sustainable Development Goals (SDGs). In terms of governance, in the face of disarray in global supply chains, we are helping the aviation industry to improve cargo handling capacity and promote the economic development of our country through measures such as flexible ramp deployment and optimization of airside and landside cargo routings. According to ACI, TTIA was among the top four airports in the world in terms of international cargo throughput in 2021, handling a record high of 2.81 million tons. In line with the global

trend of technological intelligence, TIAC is moving forward with digital transformation, including self-developed systems and the implementation of the Flight Operation System (FOS), which addresses airport information, including landing, and take-off, arrival, departure, baggage carousels, commercial services and personnel scheduling of public authorities, effectively improving airside management efficiency. These systems have also obtained national patents. With regard to the environment, we continue to promote climate change mitigation and adaptation measures to achieve the climate targets agreed at the United Nations Conference of Parties in Paris (COP21), and we have been awarded the Airport Carbon Accreditation (ACA) Level 3 achievement and the Gold Award in the Green Airports Recognition, both by ACI. In the social aspect, we are committed to creating a friendly workplace where employees can work in a healthy state of mind, body and spirit, giving full play to their work efficiency and creativity, and achieving a win-win situation for both management and employees. At the same time, we are also committed to social service and creating a culture of inclusion by leveraging our social influence.

Looking ahead, we will continue to promote the construction of the airport park, including Terminal 3, the third runway, the west satellite concourse, and more than 30 other projects, with the vision of "becoming an international air transportation hub and driving the development of the aviation industry" as our guiding principle. These projects are expected to serve 82.18 million passengers per year, handle 4.02 million tons of cargo, and have a capacity of 440,000 landings and take-offs and to bring about TWD 1.19 trillion in economic benefits and 156,000 jobs to Taiwan, realizing the vision of "East Asia Hub Airport" and contributing to the sustainable development of Taiwan as a whole.

Taoyuan International Airport Corporation Ltd.
Kuo-Shian Lin, Chairman





2021 Honorable achievements



Airports Council International (ACI)

- ★ ACI Airport Health Accreditation Certificate (AHA) program
- ★ The 5th Green Airports Recognition Silver Award for Air Quality Management in the class of over 25 million passengers (the highest class)
- ★ The Voice of the Customer Recognition Award for the second consecutive year



Skytrax

Awards	2021
World's 100 Best Airports	37 th place
Best Airport Immigration	3 rd place
Best Airport Employees in Asia	9 th place
World's Cleanest Airport	10 th place
Asia's Cleanest Airport	8 th place
World's Best PRM / Accessible Facilities	10 th place



Asia Sustainability Report Award(ASRA)

Winner of three major awards:

- ★ Asia's Best Sustainability Report (Public Sector) Gold Award
- ★ Asia's Best Workplace Reporting Silver Award
- ★ Asia's Report of the Year Special Award



Ministry of Culture

The 7th Public Art "Environmental Integration Award"



Human Resources Bank

Gold Award for Happy Business for the second consecutive year



Ministry of Transportation and Communications (MOTC)

2021 Excellent Public Construction Merit Award
Two honorable mentions in the performance evaluation for the "Transport Data eXchange" - "Air Transportation Group" and "Parking Group"



The 21st Public Construction Gold Quality Award

"Public Facilities Maintenance Management Award" Honorable Mention



Taiwan Corporate Sustainability Awards (TCSA)

- ★ Corporate Sustainability Award
- ★ Corporate Sustainability Report in the Transportation Industry Category - Gold Award



2021 ESG actions at a glance



- Launched the climate change adaptation action plan, and the third runway comprehensive plan with a land remediation and drainage plan.
- Completed the lighting and equipment improvement project for Terminals 1 and 2 for energy efficiency improvement of 7,168,658 kWh of electricity, reducing a total of 3,598 tons of CO₂e emissions per year.
- Starting in 2021, non-electric vehicles will not be allowed to enter or pass through the baggage handling yard to reduce the use of fossil fuels and the emission of greenhouse gases and air pollutants.
- The number of tenant companies participating in the "Plan for Joint Participation in Carbon Reduction" grew from 59 to 74 companies.
- We conducted 5 environmental education courses, with 499 participants.



- Elected service models from tenant companies. Finally, there were 26 service models.
- Conducted 3 gender equality working group meetings and 2 courses.
- Conducted 14 training sessions on occupational hazards, with a total of 2,443 participants.
- Conducted 4 sessions of occupational disaster counseling for contracted vendors, totaling 7 participants; also conducted 5 sessions of "occupational safety and health self-management audit and counseling" for a total of 16 participants.
- Conducted 1,385 training sessions, with an average of 116 hours of training per employee.
- A total of 280 people used the EAPs counseling service. The overall average EAP satisfaction score was 5.27 out of 6.
- Actively engaged in giving back to society, including industry-academia cooperation, volunteer promotion, social welfare and arts activities, showing social influence.



- The long-term rating by Taiwan Ratings was twAAA, short-term rating was twA-1+, with stable outlook; the long-term rating by Standard & Poor's was AA-, with positive outlook.
- Promoted the development of air cargo industry, including coordinating with relevant authorities and operators to improve operational efficiency, assisting in the introduction of cold chain certification and facility construction to add value to the industry, new cargo parks and the second free trade port project, with a cargo volume of 2,793,584 tons in 2021, up 19%, ranking 7th in the world.
- Organized educational and promotional activities on civil service ethics, with a total of 5 sessions and 451 participants in 2021.
- Conducted diverse flight safety and security training and drills, with 36 sessions and 3,478 participants (including tenant companies).
- Introduced and built a number of intelligent and innovative pieces of software and hardware, including One ID facial recognition system, Airport Digital Information Integration Platform (ADIP), and Airport Collaborative Decision Making (A-CDM) system.



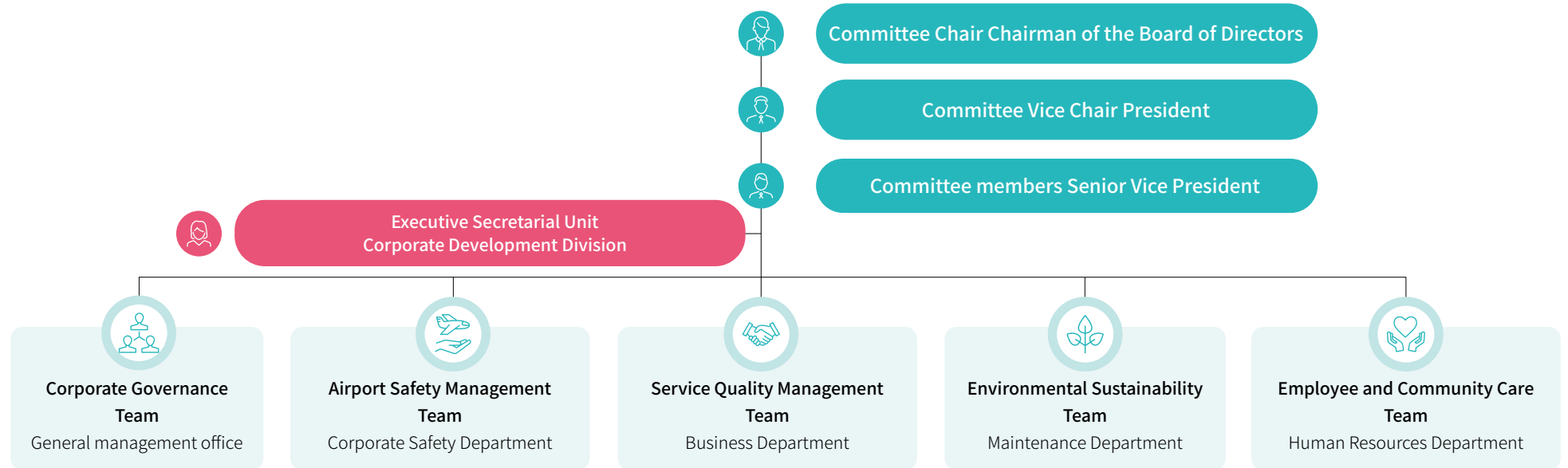
Sustainable development

CSR Committee

Addressed sustainability issues and implemented sustainable management, and continued to improve economic, environmental and social performance to achieve the goal of sustainable development; TIAC formulated the "TIAC Code of Practice for Corporate Social Responsibility" and established the CSR Committee in 2019. In line with the UN SDGs and national policies, the Company plans to amend the "Rules for the Establishment of CSR Committee" in the second half of 2022 and rename the CSR Committee as Sustainable Development Committee.

The CSR Committee is responsible for formulating sustainability policies and goals, implementing and reviewing economic, environmental and social indicators,

and reviewing the annual sustainability report. The TIAC Chairman serves as the Committee chair, while the President & CEO serves as the vice chair, and TIAC senior vice presidents serve as Committee members. Five executive teams with corresponding management performance targets have been established under the Committee: the "Corporate Governance Team," the "Airport Safety Management Team," the "Service Quality Management Team," the "Environmental Sustainability Team," and the "Employee and Community Care Team." The Committee generally convenes a meeting at least once every six months, but a meeting can be convened at any time as necessary.



Note: The Company plans to amend the "Rules for the Establishment of CSR Committee" in the second half of 2022 and rename the CSR Committee as the Sustainable Development Committee.



Sustainable development strategy and goals

TTIA serves as a gateway for the nation. To become an international air hub that drives development in the aviation industry" is the guiding principle of TTIA. The vision of the Corporation is to "Creating pride and glory for the gateway to the nation and transforming Taoyuan Airport into a gateway airport connecting the world with heart." TIAC continues to uphold the five core operational cornerstones of "Safety,

Integrity, Passion, Innovation, and Professional", and puts in maximum efforts on the following tasks. Positioning TTIA as a hub in Eastern Asia and facilitating the sustainable development of Taiwan's society as a whole is among the Corporation's most important corporate society responsibilities.



Establishing a stable and secure service system for achieving optimal operating efficiency



Aligning with international standards and showcasing Taiwan's culture of diversity



Pursuing innovation and utilizing smart technology



Implementing corporate governance and creating a sound and sustainable business environment; Implementing corporate social responsibility



Giving full consideration to employee value and shaping a corporate culture of trust and integrity





Service and operations center



- Provide sufficient development opportunity for air cargo and enhance the competitiveness of international logistic services. Furthermore, to secure the development of related industries and the position of TTIA as the hub of the AsiaPacific region.
- Facilitate the liberalization and internationalization of trade with the introduction of the Free Trade Zone, and to connect international supply chain and promote industrial upgrading via the smart logistics.
- Strengthen industrial operation environment and service measures, to establish the AsiaPacific cargo & logistic, aviation services, and international business centers.

Vibrant airport city



- Strengthen service facilities and functions to build recreation base for local citizens. With advances in public transportation systems, TTIA becomes increasingly connected with neighboring cities, and TIAC plans to add facilities such as restaurants, malls, and observatories to strengthen functions for local recreation.
- Collaborate with other industries within Taoyuan Aerotropolis and establish friendly relations with surrounding cities to drive the development of Taoyuan Aerotropolis and help achieve mutual benefit.

Medium- and long-term planning and management strategies for sustainable development

The vision of Taiwan's air transport is "To become an international air transportation hub and to drive the development of the aviation industry". Under this vision and taking into consideration Taiwan's geographic location, its industrial development and policy trends, and TTIA's unique advantages, TIAC envisions itself to become "the transportation hub in East Asia for passengers, services and goods between Asia-Pacific and North America. With this vision in mind, TIAC established five main medium to long term development goals and corresponding operation strategies: High-performance transfer node"; "Service and operations center"; "Sustainable safe airport"; "Forward-looking smart airport"; and "Vibrant airport city" Moreover, through the five medium to long-term development goals, and by utilizing its core capabilities and resources, TIAC works to assist the realization of the Sustainable Development Goals (SDGs) established by the United Nations.

Forward-looking smart airport



- Utilize Internet of Things (IoT), artificial intelligence, and big data, build the integrated airport decision center, and ensure airport safety and security. Strengthen the AOC (Airport Operation Centre) functions. In addition to airside operations and dispatching services, key units for airport operation and security mechanism should also be integrated to formulate an information exchange platform and provide alerts at the early stage of incidents.
- Intelligent approaches are implemented at the passenger experience and airport operation aspects to achieve the goal of increasing passenger satisfaction and optimizing airport operation efficiency. Passenger experience includes self-service check-in, selfservice bag drop, intelligent information service, etc. Airport operations include airport security, building information management, etc.

High-performance transfer node



- Use existing aviation rights to strengthen the density of route network at Taoyuan Airport, and create OD and transfer traffic; fully support the needs of airline operators that relate to airport development.
- Enhance airport service facilities and efficiency to attract transfer passengers. Increase airport infrastructure and capacity, enrich tourism service capacities, enhance passengers experience.

Sustainable safe airport



- Promote carbon-reducing measures to both airside and landside operations. TIAC promotes green transportation strategies in phases, including electrification of vehicles, airside carbon reduction goals and feasible solutions, and sustainable energy management schemes and objectives, striving to achieve a carbon-neutral airport.
- Formulate climate change mitigation strategies and propose guidelines of airport resilience policy. When promoting airside and landside construction, TIAC considers material issues such as flood prevention and drainage. The corporation conducts a rolling review of the vulnerability of TTIA, and adjusts the improvement and action plan accordingly.



Stakeholder communication and material topics of 2021

In order to address the suggestions of stakeholders on the direction of the Company's sustainable management, the Company uses a systematic identification process of material topics to analyze the issues of concern to stakeholders with a higher degree of impact on the Company's sustainable management, and uses them as the main focus of the sustainability report. The procedures for identifying material topics are as follows:

1 Stakeholder identification and engagement - 7 categories of stakeholders





In accordance with the AA1000 Stakeholder Engagement Standards (SES), the five principles of dependency, responsibility, tension, influence, and diversified perspectives, TIAC has identified seven major stakeholders in 2021: employees, passengers, and aviation sector operators (including civil air transportation, general aviation, air cargo handling, air cargo terminal operation, air terminal ground services, and airline catering), government, collaborating partners (e.g., suppliers, contracted vendors, and resident business service facilities operators), media, and neighboring residents.

TIAC interacts with stakeholders through various communication channels to understand the needs of stakeholders. We communicate with our seven major stakeholders in the following manner and frequency:

Stakeholders	Meaning to the Company	Topic of concern	Engagement method (communication frequency)	Engagement outcome (communication efficacy)
Employees 	Employees are an important asset of TIAC and the key to our sustainable operations.	<ul style="list-style-type: none"> Airport safety Labor and management relations Occupational safety and health (OSH) 	<ul style="list-style-type: none"> Labor-management meetings (quarterly) Occupational Safety and Health Committee meetings (quarterly) Health consultation (real-time) Complaint hotline and mailbox (real-time) Automation system (from time to time) 	In addition to the established engagement methods, we also provide an Employee Assistance Program (EAP) and other activities and programs to effectively plan and execute the selection, training, employment and retention functions to promote employee engagement and labor harmony.
Passengers 	Our continuous development of innovative services is driven by the positive feedback from our passengers.	<ul style="list-style-type: none"> Airport service quality Airport safety Response to climate change 	<ul style="list-style-type: none"> Passenger mailboxes (frequent correspondence everyday) Comment form (frequent correspondence everyday) Telephone calls/letters (real-time) Passenger satisfaction survey (annual) 	We aim to improve the quality of our services by understanding the opinions reflected by our passengers through passenger mailboxes and other means for improvement.
Aviation sector operators 	We provide equipment and services that meet the operational needs of aviation operators and work together with them to create a sustainable value chain for aviation.	<ul style="list-style-type: none"> Airport safety Airport service quality Response to climate change 	<ul style="list-style-type: none"> Business-related coordination meetings (from time to time) Official documents (from time to time) Telephone/e-mail (from time to time) 	Regularly communicate about airport traffic to discuss and coordinate related traffic issues.





Stakeholders	Meaning to the Company	Topic of concern	Engagement method (communication frequency)	Engagement outcome (communication efficacy)
<p>Government</p> 	<p>The Company's governance policies and practices are subject to the guidance and supervision of the competent authorities.</p>	<ul style="list-style-type: none"> • Airport safety • Airport service quality • Airport links 	<ul style="list-style-type: none"> • Mailboxes of the heads of government agencies (frequent correspondence everyday) • Review and audit meetings (from time to time) • Legislation Yuan visits (from time to time) • Various communication meetings (from time to time) • Visits and seminars (from time to time) • Official documents (from time to time) • Telephone/e-mail/inquiries (from time to time) 	<p>The company follows the national policy to carry out business planning, including proposing the "Taiwan Taoyuan International Airport Park Outline Plan", and will report the progress to the competent authority.</p>
<p>Collaborating partners</p> 	<p>The service experience at TTIA is the result of the concerted efforts of the Company and our partners.</p>	<ul style="list-style-type: none"> • Airport safety • Airport service quality • Supplier management 	<ul style="list-style-type: none"> • Work safety meetings (quarterly) • Business-related coordination meetings (from time to time) • Contract performance review meetings (monthly) • Management system development (from time to time) • Official documents (from time to time) • Telephone/e-mail (from time to time) 	<p>We employed multiple communication channels, including 4 supplier education and training sessions; flight safety training and drills, 36 sessions in total; promoted the "Plan for Joint Participation in Carbon Reduction", with 74 resident companies participating.</p>
<p>Media</p> 	<p>The media is the communication bridge between TIA and the outside world, and it is also a good partner to monitor and urge us to improve.</p>	<ul style="list-style-type: none"> • Airport service quality • Airport safety • Information security 	<ul style="list-style-type: none"> • Press conferences (2 times per quarter on average) • Press releases (10 times per month on average) • Other media interviews and appearances (at least 20 times per year) 	<p>In 2021, we published a total of 177 reports and magazines, 96 press releases, gave 66 television media interviews, and held 8 regular press conferences in order to continue to show the outside world our current status and achievements.</p>
<p>Neighboring residents</p> 	<p>The Company values the living environment and quality of life of its surrounding residents</p>	<ul style="list-style-type: none"> • Noise and community engagement • Airport safety • Indirect economic impact 	<ul style="list-style-type: none"> • Assist Department of Environmental Protection, Taoyuan City with temporary noise monitoring (from time to time) • Communication meetings (from time to time) • Telephone/e-mail/inquiries (from time to time) 	<p>We assist in temporary noise monitoring and receive feedback from the surrounding residents. In 2021, there was one joint survey and there were community feedback activities.</p>



2 Sustainability topic collection - 18 sustainability topics

In order to disclose the concerns and expectations of the above-mentioned stakeholders and to respond to the opportunities and challenges of sustainable operations, TIAC took reference from the Sustainability Strategy for Airports Worldwide published by ACI. and analyzed and identified various sustainability issues in terms of national policies, GRI Standards, international trends, industry benchmarks, and corporate annual goals and regulations. 18 sustainability topics were compiled in the areas of corporate governance, airport safety management, service quality management, environmental sustainability, and employee and social care.

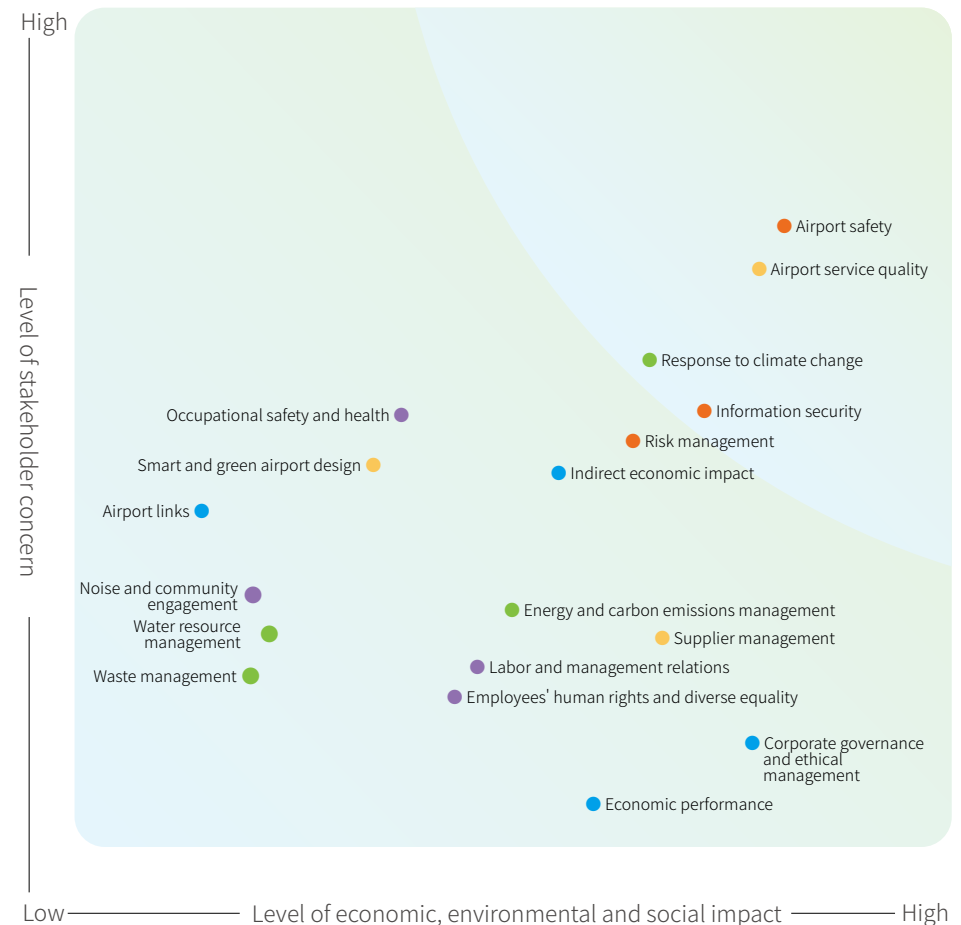
Corporate governance	Airport safety management	Service quality management	Environmental sustainability	Employee and social care
Corporate governance and ethical management	Risk management	Supplier management	Response to climate change	Noise and community engagement
Economic performance	Airport safety	Airport service quality	Energy and carbon emissions management	Labor and management relations
Indirect economic impact	Information security	Smart and green airport design	Water resource management	Employees' human rights and diverse equality
Airport links			Waste management	Occupational safety and health

3 Sustainability topic sorting - 382 questionnaires collected

A questionnaire survey was conducted to understand the level of stakeholder concern in those 18 sustainability topics. The same questionnaire was used to ask internal managers about the impact of the 18 sustainability topics on TIAC, and they were given a score from 1 to 5 in descending order. The questionnaire required that each issue had different scores, and if all scores were the same, the questionnaire was considered invalid. A total of 382 questionnaires were collected in 2021, of which 350 were valid, making for a validity rate of 91.6%. The Company sorted them according to the results of the valid questionnaire.

4 Establishment of material topics - 8 material topics

We analyzed the "level of stakeholder concern" and "level of economic, environmental and social impact" of each topic of concern and created a matrix of material topics. After identification, analysis and internal discussion and confirmation, the top material topics were airport safety, airport service quality and information security, response to climate change, risk management, Occupational safety and health, indirect economic impact, corporate governance and ethical management.

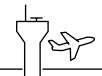




5 Reviewing and confirming material topic

After a rigorous identification procedure, the material topics for 2021 were the eight material topics near the top right of the matrix, i.e., those with higher level of stakeholder concern and higher level of economic, environmental and social impact, with the following material topic boundaries:

Material issues	Meaning to the company	GRI standards specific topics	Responding chapters	Boundaries						
				Taoyuan International Airport Corporation Ltd.	Passengers	Aviation operators	Government	Partners	Media	Neighboring residents
Airport safety	Airport safety is the most important mission and responsibility of TIAC in order to achieve the goal of zero disasters and zero accidents.	Self-defined topic	2.2 Airport safety management	●	○	▲	○	▲	○	○
Airport service quality	We value airport service quality and service satisfaction to enhance the operational efficiency and service levels of TIAC.	Self-defined topic	Chapter 3 Active listening to create in-depth service	●	○	▲	○	▲	○	
Information security	TTIA is one of the most important international airports in Taiwan, and there are vendors residing in the Airport, so we need to ensure the information security and not to have information leakage.	GRI 418	2.2 Airport safety management	●	○	▲		▲		
Response to climate change	In line with international aviation organizations and national policies, TIAC attaches great importance to the issue of climate change and endeavors to reduce the risk of climate change to stabilize its operations.	GRI 201	4.2 Response to climate change	●		○				





Material issues	Meaning to the company	GRI standards specific topics	Responding chapters	Boundaries						
				Taoyuan International Airport Corporation Ltd.	Passengers	Aviation operators	Government	Partners	Media	Neighboring residents
Risk management	We strive to achieve the highest standards of airport safety through our risk management procedures.	Self-defined topic	2.1 Risk management	●					▲	
Occupational safety and health	TTIA is undertaking major projects, such as Terminal 3 and third runway, and therefore needs to ensure the occupational health and safety of its employees and contracted vendors.	GRI 403	5.2 Safe and healthy workplace	●			○		▲	
Indirect economic impact	TIAC plans a third terminal and a third runway to expand the Airport's capacity, which will promote national development and local prosperity.	GRI 203	3.3 Air cargo development	●		▲	○		▲	○
Corporate governance and ethical management	We uphold the principle of ethics and carry out corporate governance, believing that only through ethics and integrity can we continue to operate and bring the greatest benefits to all.	GRI 307 GRI 419	1.4 Safeguarding ethics and legal compliance	●			○			

● : Direct impact ○ : Contributing to the impact ▲ : Directly related to the impact through business relationships

Note: After taking into consideration comprehensively, "information security", "response to climate change", "risk management", and "occupational safety and health" were added to material issues in 2021 compared to 2020, and "labor and management relations", "smart airport", "supplier management", and "waste management" were removed.



Chapter 1 Deepening governance and safeguarding the spirit of ethics

Key response to stakeholders

- Employees
- Government
- Collaborating partners
- Media

Chapter summary

Through the implementation of corporate governance, we have achieved the governance principles of "implementing internal control and audit system", "improving financial system", "strengthening the functions of the Board of Directors and the efficiency of the Board of Directors and supervisors", "disclosing and making transparent corporate changes and significant information", "safeguarding public power and exercising the function of supervisors," and "valuing the interests of stakeholders". We fearlessly face any challenge and cherish every opportunity to let every path across the sky continue to drive Taiwan forward.





Material topic management approach: Corporate governance and ethical management



Policies and commitments

Continue to cooperate with government policies, deepen our culture of specialized ethics and legal compliance, strive to avoid violations of laws and regulations, and continue to reduce legal compliance risks.



Goals

Short-term goals

- Continue to refine corporate governance system and enhance information transparency.
- Amend corresponding internal regulations timely when external regulations change.
- No major violations of laws and regulations in the social, environmental and economic fields.

Medium- and long-term goals

- Strengthen the functions of the Board of Directors and communication with stakeholders, and carry out corporate governance practices to increase information transparency, pursue high standards of ethical behavior, and achieve the vision of sustainable management.
- Design an internal control system with reference to the "Regulations Governing Establishment of Internal Control Systems by Public Companies", provide relevant education and training for company employees and promote anti-corruption, and pursue a high standard of ethical behavior.



Complaint mechanism

Please refer to: [Stakeholder communication and material topics of 2021](#)



Evaluation mechanism

- The Company prepares quarterly litigation statistics to assess the frequency, volume and type of litigation, and to identify the direction for strengthening control and improvement.
- We conduct regular internal control-related risk assessments on an annual basis.
- Guidelines for managing the selection and grading of representatives from public and private business institutions and foundations appointed by the MOTC and its affiliated business institutions.



Specific actions

- In 2021, there were no incidents with high risk in civil service ethics.
- In 2021, there were 2 educational and promotional sessions on civil service ethics with a total of 354 participants, and 3 sessions of the civil service ethics platform series with a total of 97 participants.
- In 2021, we published the "Civil Service Ethics Newsletter - Civil Service Ethics E-News" 4 times.
- We conducted 4 supplier education and training sessions with 436 participants to enhance the procurement professionalism of the personnel and improve the efficiency and quality of government procurement.

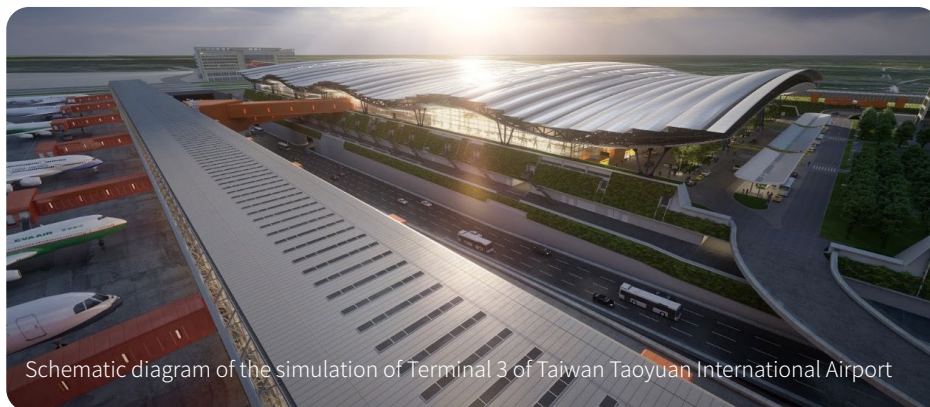




1.1 About Taiwan Taoyuan International Airport

Taoyuan International Airport Corporation Ltd. ("TIAC", "the Company", "we") was established in accordance with the "International Airport Park Development Act" and the "Act of the establishment of State-Run International Airport Park Corporation Limited", and its main mission is to develop, operate and manage the International Airport Park (including the airport zone and the free trade port within or adjacent to it).

TTIA is located in Taoyuan City, Taiwan. With an average time of 175 minutes, it is connected to the five major airports in Asia, and is the center of air traffic in East Asia, and is the first choice of air transportation for the Taiwanese people. On November 1st, 2010, the management unit of TTIA was officially changed from the original administrative agency "Taoyuan International Airport Corporation Ltd." to a state-owned enterprise, "Taoyuan International Airport Corporation Ltd. " This is not only an opportunity for TTIA to transform itself, but also has historical significance for the development and operations of Taiwan's terminals. Since then, TIAC has been actively introducing entrepreneurial management and execution, and has been constantly striving to launch new and human-oriented service measures to bring the brand spirit of the "gateway to the world with heart" to the fullest.



Schematic diagram of the simulation of Terminal 3 of Taiwan Taoyuan International Airport



Connecting the World with Heart

Taken from the first alphabet of "Taoyuan Airport", TTIA's logo is a cross made of four interconnecting "T" s of different colors and directions. This demonstrates the concept of TTIA being an East Asia hub and at the core of the world. The intersecting latitude and longitude lines convey the idea that TTIA is the base that connects the world. The colors represent the spirit of the TTIA brand: vitality, diversity, and brilliance.



What 4" T" stands for



TAIWAN,
TAOYUAN, TPE
Think globally
footing locally to
the world

TRANSFER
Eco-friendly
environment
leading on Asia-
Pacific hub

TRANSFORM
Commit to
innovation
keeping on
progressing

TOUCHING
Customer
satisfaction
passing on
passion and
warmth





Future orientation

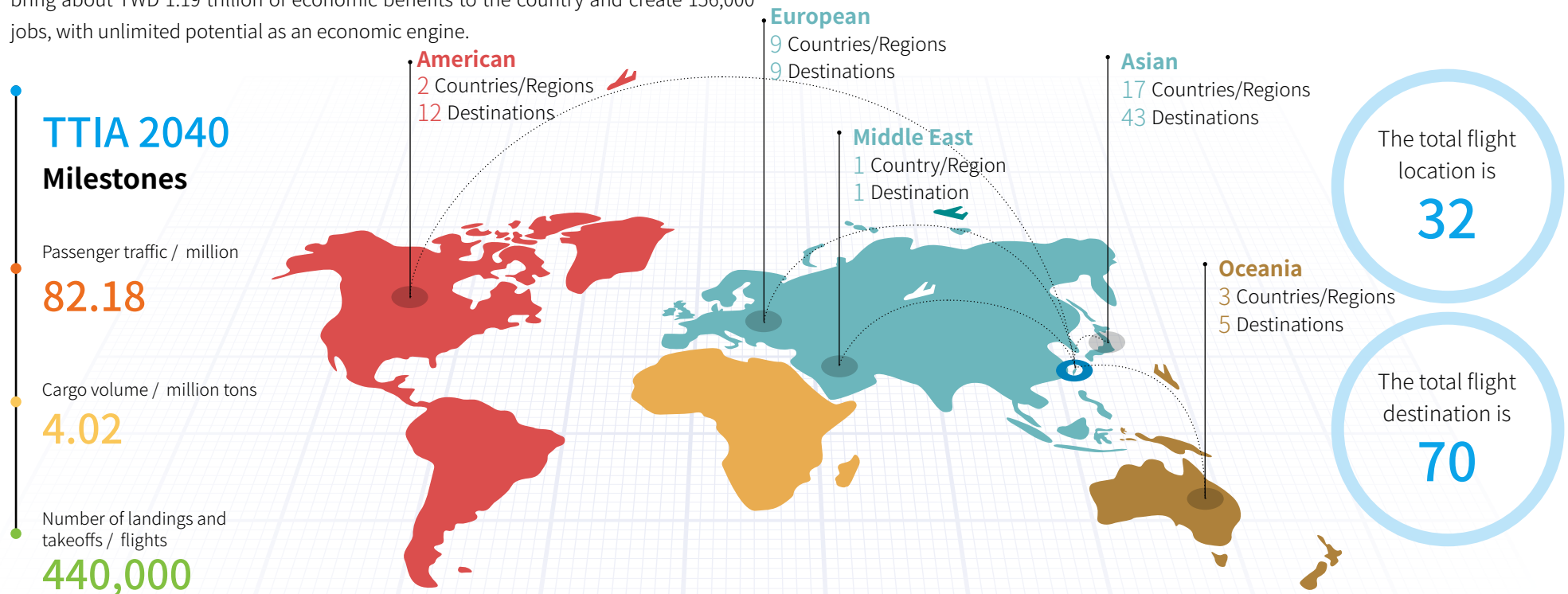
It is an important mission of TIAC to help facilitate the internationalization of Taiwan's industries. We have set the year 2040 as a milestone, hoping that TTIA will be elevated from an aviation hub in East Asia to a key player in the global aviation landscape through step-by-step improvements and enhancements to hardware and software.

For the future, a total of TWD 509.9 billion will be spent on the construction of the airport park. Among them, TIA will spend TWD 244.9 billion on Terminal 3, the third runway and taxiway, and the West Satellite Concourse. Upon completion of the airport park, TIAC is expected to serve 82.18 million passengers, handle 4.02 million tons of cargo, and have a capacity of 440,000 take-offs and landings per year. In total, it will bring about TWD 1.19 trillion of economic benefits to the country and create 156,000 jobs, with unlimited potential as an economic engine.

Under the endless sky, our vision is a march of continuous evolution. As the starting point for Taiwan to fly to the rest of the world, TIAC will ceaselessly evolve now and ever, bravely facing any challenge and cherishing every opportunity in its constant ascent, so that every road extending to the sky will go on to drive Taiwan forward.

✈️ Global flight locations

TTIA serves 32 countries and regions, with 70 destinations (including 11 all-cargo destinations, 54 scheduled passenger destinations, and 5 unscheduled passenger destinations) and 89 airlines (including 13 all-cargo airlines, 76 passenger airlines, 64 scheduled flights, and 12 unscheduled flights.)





Passenger traffic, cargo volume, and number of flights

Due to the severe impact of the COVID-19 pandemic on the global aviation industry, the number of international passengers worldwide has dropped dramatically with TTIA serving only 909,012 passengers in 2021. As TTIA is able to fully utilize its advantageous geographical location by combining the cooperation of various public and private entities, and its cargo volume reached 2,812,065 tons, up 20.03%, ranking 7th in the world in terms of international cargo volume. Despite the impact of the pandemic, TTIA is still one of the busiest airports in the world.

In terms of passenger traffic, under the impact of the pandemic, the number of passengers in 2020 and 2021 showed a decreasing trend, but with reference to historical data such as SARS in 2002, we expect that the impact of the COVID-19 pandemic will not affect the long-term development of TTIA, Therefore, for the milestone year of 2040, TTIA is expected to have 82.18 million passengers by then.

In terms of cargo, the volume at TTIA was not significantly affected by the pandemic, but presented a growth trend. In the long run, air cargo has been affected by the slowdown in demand for medium to large size goods (e.g., medium to large size components) and the strong momentum of global e-commerce, resulting in a reduction in the weight of global air cargo, an increase in the value of goods, and an increase in the number of shipments, which continues to increase the overall value-added of air cargo. Furthermore, considering the restructuring of the global supply chain and the resilient cooperation after the pandemic, domestic related industries and TTIA are likely to play a more important role in the supply chain, and the cargo volume is expected to reach 4.02 million tons in 2040.

The number of flights decreased in 2020 and 2021 due to the decline in passenger traffic as a result of the pandemic. The aviation industry is expected to be more conservative in its expansion after the pandemic, so the fleet size and number of take-offs and landings are expected to grow steadily and slowly, and the number of flights is expected to reach 440,000 in 2040.

Although the world is still affected by the pandemic, the long-term growth of

air passenger traffic is still optimistically expected. The International Air Transport Association (IATA) expects people to be eager to travel by air in both the short and long term, and says that vaccination is the best solution for reopening borders. Highly developed countries such as Europe and the U.S. could achieve high rates of vaccination in the second half of 2021, and several countries are already gradually or partially lifting restrictions on vaccinated travelers. According to a forecast released by Airports Council International (ACI) in July 2021, it is optimistic that the average global passenger traffic will return to the pre-pandemic levels by 2023. The average international passenger traffic is expected to return to the pre-pandemic levels by 2024 or 2025, but the recovery will vary from country to country, and some may take longer to recover. It is even estimated that global passenger traffic will increase to 5.6 billion by 2030. Although growth has been delayed by two to three years due to the impact of the pandemic, and 7% lower than the pre-pandemic forecast, it is clear that the short-term impact of the pandemic has not caused structural changes in air passenger traffic, and the growth trend remains unchanged in the medium to long term.

Passenger traffic over the past three years (number of passengers)

Data year	International routes (including Hong Kong and Macau)	Cross-strait routes	Transit	Total for the year	Growth rate from previous period (%)
2019	40,299,240	8,061,050	329,082	48,689,372	4.63%
2020	6,657,089	728,989	52,247	7,438,325	-84.72%
2021	713,139	195,844	29	909,012	-87.78%

Note: The transit passenger traffic in this table does not include transit passengers who make entry through immigration





Cargo volume over the past three years (tons)

Data year	Imports	Exports	Transit	Total for the year	Growth rate from previous period (%)
2019	628,644	547,429	989,144	2,182,342	-6.04%
2020	573,552	572,319	1,177,540	2,342,714	7.3%
2021	681,165	740,979	1,137,440	2,812,065	20.03%

Note: This table includes mail volume, and the growth rate is calculated in kilograms

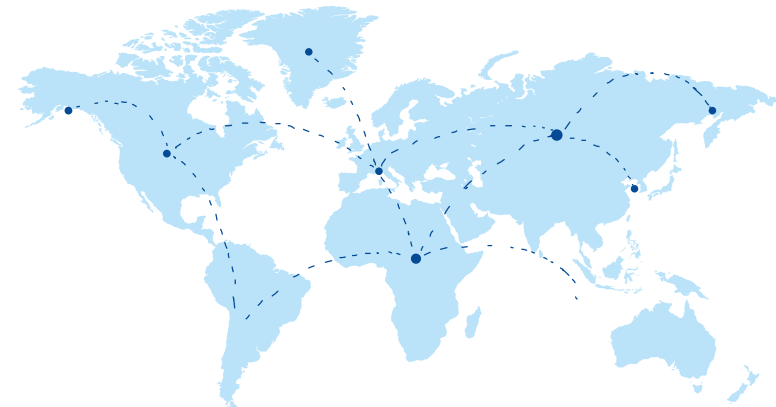
Number of flights over the past three years

Data year	International routes (including Hong Kong and Macau)	Cross-strait routes	Total for the year	Growth rate from previous period (%)
2019	213,996	51,629	265,625	3.73%
2020	101,116	17,333	118,449	-55.41%
2021	92,566	14,337	106,893	-9.76%

1.2 International footprint

Since 1999, the Skytrax World Airport Ratings have served as independent surveys of travelers' opinions on airport check-in, arrival and departure, security, shopping, and immigration. Passengers fill in their opinions online by themselves so the results are objective and highly valued by the industry because they are not sponsored by external parties. In 2021, TTIA was ranked among the top 10 in the international Skytrax competition for "Best Airport Immigration", "Best Airport Employee in Asia", and "Asia's Cleanest Airport", with its performance recognized in many categories. TTIA is dedicated to providing passengers with quality services, comfortable space and advanced facilities. Keeping pace with the times, TTIA has let the world see Taiwan and brought Taiwan to the world.

In addition to the Skytrax Awards, TTIA also participates in the ACI/ASQ ratings, which are subject to non-disclosure agreements and since 2018, have changed the award categories and rules, and no longer presents awards. Nevertheless, TIA was ranked 35th in 2021 in the 40 million traffic class. Moving forward, we will focus on the construction of additional infrastructure and renovation, and significantly upgrade the passenger service facilities in the terminals to continue to optimize the quality of service and enhance the passenger experience.



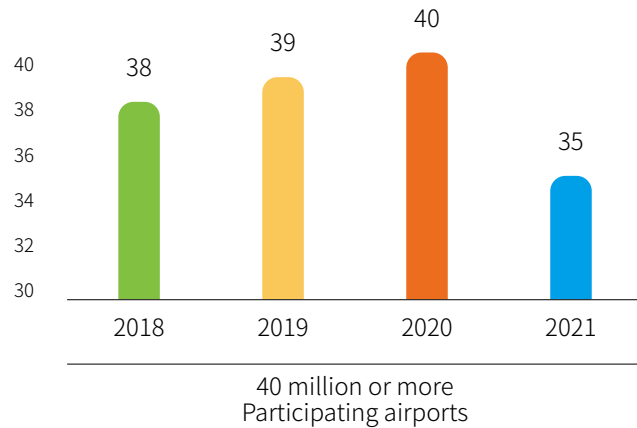


The overall performance of TTIA in Skytrax in 2021

- 37th place World's 100 Best Airports
- 3rd place Best Airport Immigration
- 9th place Best Airport Employees in Asia
- 10th place World's Cleanest Airport
- 8th place Asia's Cleanest Airport
- 10th place World's Best PRM / Accessible Facilities



Overall performance of TTIA in ACI/ASQ ratings in 2021



The Voice of the Customer Recognition

TIAC was recognized for its continued participation in the ACI/ASQ airport service quality survey program during the pandemic, and for its efforts to improve service quality at the Airport. To receive this recognition, ACI members are required to collect data for three or more quarters in response to the changing needs of passengers. Through quantitative and qualitative research, TIAC identifies key factors and priorities for improving passenger service facilities. In addition to the overall ratings, surveys are also conducted on traffic flows, boarding procedures, passport control, security checks, signage system, airport services/facilities, airport environment, and immigration services. Regular reviews are conducted on an item-by-item basis to improve the quality of airport services through cross-unit cooperation: monthly survey results are provided to internal and external units, and quarterly reviews of deficiencies are conducted.





International exchange activities

In order to improve the operation level, TIAC actively participates in international exchange activities, including joining international organizations, such as serving as a board director on the Asia Pacific Regional Council of ACI, participating in the ACI Asia Pacific Business Committee, Economic Committee, Environmental Committee, etc., and participating in international airport ratings (ASQ and Skytrax) and international exchanges, such as airport alliances, international VIP receptions, and international forums, in hopes of learning new knowledge from the industry and obtain the most advanced knowledge and issues in the aviation industry to analyze the strengths and weaknesses of TIAC's operations for decision making.

In addition, TIAC is actively developing international routes to keep abreast with international development trends. The focus of the aviation industry has gradually shifted eastward from the United States to Europe and the Middle East, and will continue to shift eastward to the Asia-Pacific region over the next 20 years. In recent years, our route development strategy has focused on developing a hub position between Southeast Asia-Northeast Asia, Southeast Asia-North America, and Oceania-Europe. With the popularity of Taiwanese going abroad and strong passenger demand to and from Europe and Australia, as well as the rapidly developing Indian aviation market, TIAC is also committed to strengthening its network in Europe, Australia and South Asia, and is actively engaged in discussions with European, Australian and Indian airlines at international airline forums.

Externally, TIAC actively participates in regional and global airline development forums, conferences and exhibitions to attract foreign airlines to Taiwan, and to



enhance the international aviation industry's understanding and awareness of TTIA and strengthen its competitiveness in the market.

Results of international exchange activities

International forums

Video forum on "Experience Sharing on Pandemic Prevention Measures in Indo-Pacific Airport Cities"

The video forum on "Experience Sharing on Pandemic Prevention Measures in Indo-Pacific Airport Cities" was held on September 7, 2021, jointly organized by Taoyuan City Government and the international organization CityNet. The President of TIAC, Mr. Jerry Dan, together with the CEO of CityNet, Mr. Yim Geun Hyeong, and the Director of Health of Sri Lanka's Kakkalampitiya City, Mr. Ruwan Wijayamuni, Chief Officer of Aviation Industry of Incheon City, Korea, Lee Sang-Wook, and 8 member cities from 7 countries-Korea, Japan, Sri Lanka, Indonesia, Philippines, Bangladesh, and Mongolia--shared their measures to prevent pandemics at the airports.

The President of TIAC, Mr. Jerry Dan, said that TTIA is Taiwan's airborne gateway to the outside world, and has to take care of both passenger and cargo transportation, and is an important base for aircraft maintenance worldwide. The pandemic is still in a critical state, and TTIA is taking the highest standards to prevent the pandemic and guard the gate of the country. To prevent incoming passengers from being exposed to infection, the Airport continues to upgrade its pandemic control measures. In addition to implementing the most stringent disinfection measures, passenger diversion, and general screening of incoming passengers, the Airport also uses various pandemic prevention technologies to ensure the health of passengers and personnel.





International airport exchange and cooperation

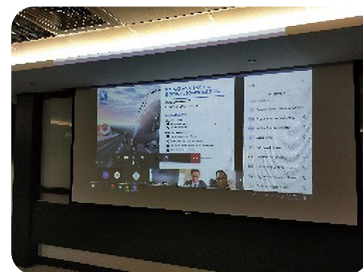
Czech airport representatives visited in November 2021

TIAC and the Czech airport representatives exchanged information on the pandemic monitoring and operations of TIA and promoted the management experience of TTIA to deepen and expand the basis of future exchanges.



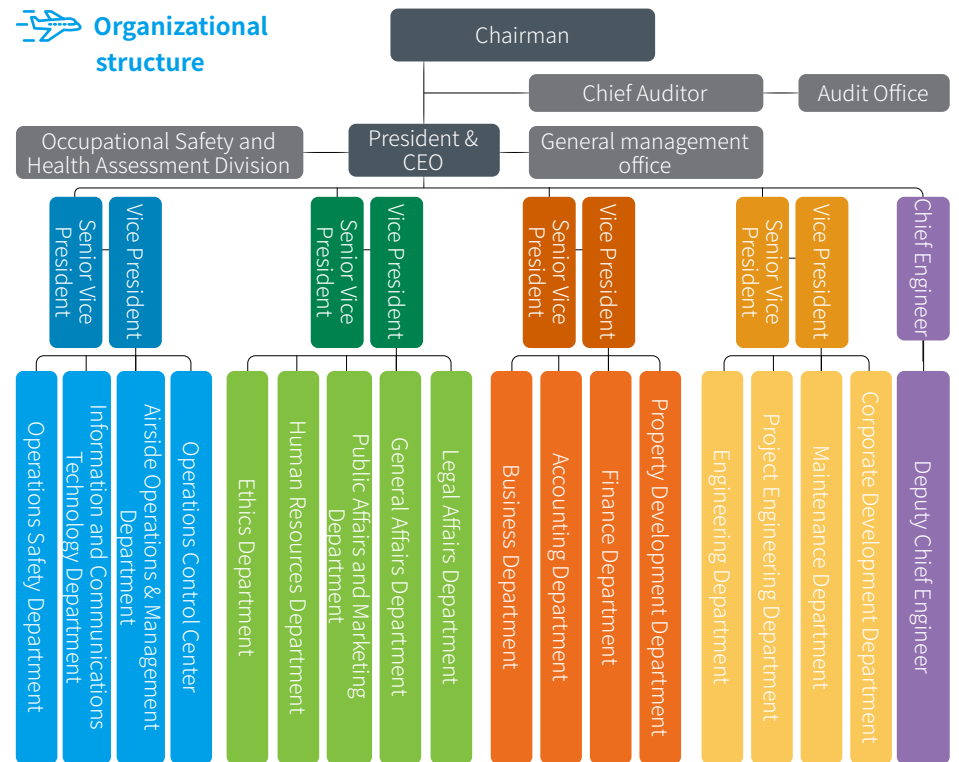
Airport Council International (ACI) Board

The President of TIAC, Mr. Jerry Dan, attended the ACI board meeting to discuss the current development trends of international airports, and to draw up a future airport plan in line with international development trends, and to continue to promote the development plan of TTIA in the next five years with "major construction projects", "ongoing projects" and "critical issues planning".



1.3 Deepening governance

Through the implementation of corporate governance to achieve the governance principles of "protecting shareholders' equity and pursuing sustainable corporate development", "valuing stakeholders", "ethical management and effective supervision", "implementing market mechanisms and enhancing information transparency," and "co-prosperity with the local community," Taiwan Taoyuan International Airport has established a healthy corporate governance culture and is gradually enhancing its position in the international market to improve the overall competitiveness of Taiwan.



Organizational chart of Taoyuan International Airport Corporation Ltd. revised as of 2022



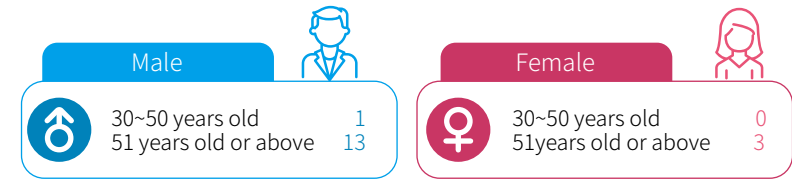


Board of Directors

The Board of Directors of Taoyuan International Airport Corporation Ltd. is appointed by the competent authority, the Ministry of Traffic and Communications (MOTC). The powers and functions of the Board of Directors include the review of the Company's articles of incorporation and the Board's charter, the approval of the Company's organizational charters, the review of the Company's capital adjustment and stock issuance, the review of the Company's annual business policies, plans, budgets and final accounting reports, and the company's investments or reinvestments. the review of guarantees or loans against the Company's property, the appointment and removal of the President and Vice President of the Company, the review or approval of the Company's personnel regulations, the approval of the Company's business regulations, the approval of the company's internal control system, approval of the establishment, the approval of the establishment, change or revocation of the Company's domestic and foreign branches, the review of matters that must be reported to the MOTC for approval in accordance with the International Airport Park Development Act, and the review or approval of other matters in accordance with regulations and the Company's Articles of Incorporation. The Company's Board of Directors convenes regular meetings once every three months, except for those convened by law, and may convene interim meetings when necessary. The Board of Directors held 6 meetings (4 regular meetings and 2 interim meetings) in 2021, with an attendance rate of 92.22%. The directors and supervisors have attended 161 hours of courses on corporate governance, performance management, major government policies, rule of law and civil service ethics, environmental education and environmental issues, with an average of 8.9 hours per person.

Information on the Board of Directors

The Board of Directors (including independent directors) and supervisors currently consists of 15 directors and 2 supervisors, with a total of 17 members. There are 14 males and 3 females, 82.35% males and 17.65% females, 1 person aged 30-50 and 16 persons aged 51 (or above).



List of Board members and academic background and work experience

Procurement Committee

The Procurement Committee was established in accordance with the Board's Charter and currently consists of four experts and scholars who are not directors or supervisors. The Procurement Committee assists the Board of Directors in the preview of major procurement proposals (proposals for procurement of construction projects with a purchase amount of TWD 2 billion or more, procurement of property with a purchase amount of TWD 400 million or more, and procurement of service with a purchase amount of TWD 200 million or more), and held one meeting in 2021 to review one case, with a 100% attendance rate of Procurement Committee members.

Corporate governance

The corporate governance of Taiwan Taoyuan International Airport includes six aspects: implementing internal control and audit system, improving financial system, strengthening the functions of the Board of Directors and the efficiency of the operation of the Board of Directors and Supervisors, disclosing and making transparent the changes and significant information of the Company, protecting public power and performing the function of supervisors, and valuing stakeholders' equity. Taoyuan International Airport Corporation Ltd. is a state-owned company under the MOTC. MOTC conducts annual appraisals of the directors and supervisors assigned to the Company in accordance with the "Guidelines for managing the selection of and grading the representatives from public and private business institutions and foundations appointed by the MOTC and its affiliated business institutions" regarding their attendance, achievement of operational goals, and policy fulfillment.





Six aspects of governance

01 Implementation of Internal Control and Audit Systems

02 Improvement of Financial Systems

03 Strengthening of Board Functions and Operational Efficiency of the Board of Directors and Supervisors

04 Disclosure and Increased Transparency of Corporate Transformations and Material Information

05 Protection of Governmental Interests and Utilization of Supervisor Functions

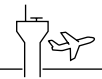
06 Focus on Stakeholder Right

✈️ Financial performance

According to the analysis of international passenger traffic statistics for 2019-2021 released by ACI (1,195 airports), international passenger traffic as a whole hit the bottom in April and May 2020 due to the surge of the pandemic, and started to recover slightly from June until August with the introduction of the vaccines. The virus then mutated and the traffic fluctuated up and down accordingly. However, in 2021, under the influence of increased vaccine coverage and gradual border liberalization policy, the traffic gradually climbed from February and peaked again in August, and then fluctuated until December. Taiwan Taoyuan International Airport is

a 100% international airport. Therefore, in 2021, the number of flights and passengers decreased sharply and the aviation market was severely affected. Taiwan Taoyuan International Airport's overall operations showed negative growth. Total operating revenue was TWD 10.484 billion, down 10.27% from the previous year, and the net loss was TWD 3.162 billion.

In addition, in line with green finance, the Company has negotiated with correspondent banks to jointly promote green deposit business, using the funds deposited by customers in time deposits as a source of funds for green loans and sustainable linked loans. We hope that this green financial practice will encourage banks to channel their capital to green and sustainable areas and promote the sustainable development of our country.





Financial performance over the past three years

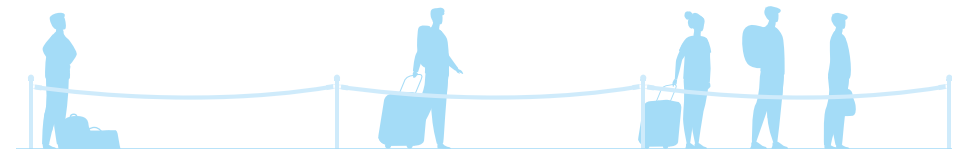
Unit: TWD billion

Item	2019	2020	2021
Total operating expense (including income tax)	154.38	135.94	136.46
Total revenue	235.16	116.86	104.84
Net profit (loss) ^①	80.78	(19.08)	(31.62)
Other comprehensive income	-0.07	0.08	0.01
Contribution to CAA Operating Fund	43.02	-	-
Allocation to local governments	9.44	-	-
Retained in the business institution	28.25	0.08	0.01
Losses borne by the business institution	0	19.00	50.61
Composition of total operating revenue			
Landing fees ^②	47.09	31.70	31.86
Concessions fees	90.33	43.00	37.38
Rent	18.44	18.78	18.86
Airport service charges	53.47	7.66	1.16
Equipment & ground handling fee ^③	23.16	13.19	12.67
Other revenue	2.67	2.53	2.91
Total	235.16	116.86	104.84

- ① Net profit \pm other comprehensive income = Contribution to CAA Operating Fund; Allocation to local governments and retained business organizations cumulative losses to be made up from prior years in local governments and retained in the business institution + net loss \pm other comprehensive income = losses to be made up in the current year.
- ② Including landing revenue, stopover revenue, and ramp usage revenue from the airline catering industry.
- ③ Including noise control revenue, air bridge usage revenue, baggage facility usage revenue, ramp usage revenue from terminal ground services, ramp usage revenue from self-operated terminal ground services operations, and fuel delivery equipment usage revenue, etc.
- ④ The financial performance data for 2021 is based on the preliminary accounting results, and the final accounting results are subject to the auditing authority's approval.

Short-, medium-, and long-term financial management measures to cope with the impact by the COVID-19 pandemic

In response to the impact of the pandemic, Taiwan Taoyuan International Airport used bank loans to accommodate its shortage of funds in the short term. In addition to bank loans, in order to maintain a stable financial structure in the medium and long term, Taiwan Taoyuan International Airport reviewed the fee basis of Taiwan Taoyuan International Airport on a rolling basis with reference to the fees charged by nearby international benchmark airports, and reasonably assessed and adjusted the fees, or submitted timely requests for additional funds to finance the construction of Terminal 3 and the third runway as scheduled and of good quality to make sure the construction of the Airport was carried out.





2019-2021 Taoyuan International Airport Corporation Ltd. credit rating results

The 2019-2021 credit rating scale of Taoyuan International Airport Corporation Ltd. as an "enterprise" is as follows.

Domestic credit rating scale

Release date	Rating company	Long-term	Short-term	Outlook
2019.11	Taiwan Ratings	twAAA	twA-1+	Stable
2020.11				
2021.04				
2021.11				

International credit rating scale

Release date	Rating company	Long-term	Short-term	Outlook
2019.11	Standard & Poor's	A+	-	Stable
2020.11				
2021.04		AA-		Positive
2021.11				

1.4 Safeguarding ethics and legal compliance

Taiwan Taoyuan International Airport is committed to establishing a culture of good and ethical management. In accordance with the "Ethics Guidelines for Civil Servants" and "Ethics Regulations for Procurement Personnel", Taiwan Taoyuan International Airport has established policies and goals for civil service ethics and a mechanism to immediately address illegal misconduct.



Civil service ethics area

In 2021, Taiwan Taoyuan International Airport prepared an annual plan with reference to the instructions of the higher-level government ethics department and the results of the implementation of the previous year's plan, and actively proposed various actions in the areas of corruption prevention, government ethics risk control, case investigation and handling, agency security maintenance, and official confidentiality maintenance. In addition to educating our employees to comply with the laws and regulations and to actively promote the Sunshine Law, we also hold regular education and promotion activities on civil service ethics. 2 sessions were held in 2021, targeting all employees; 2 articles for the civil service ethics academy were distributed to 1,312 people; 2 short promotional videos were issued, reaching 1,315 people; and 4 issues of the civil service ethics newsletter were published, reaching 2,640 people.



Promotional training on "government ethical standards and small claims by civil servants"

In order to strengthen the basic concepts of government ethics and legal knowledge of our employees, and to enhance the ethical concept and legal literacy of our existing employees so that they can follow the rules when performing their duties, we held this promotional training on September 16th and September 30th, 2021.





Promotional short videos on "civil service ethics is about you and me" and "official confidentiality"

In order to strengthen the concept of government ethics and deepen the awareness of anti-corruption and cleanliness among employees, two promotional short videos, "civil service ethics is about you and me" and "official confidentiality", were released in 2021. We hope to strengthen the concept of government ethics and non-disclosure of official confidentiality through video promotion, so that our employees can carry out their duties without improper interference and temptation, and be able to maintain integrity in a self-sustaining manner and perform administrative duties according to the law, and reduce disputes over the performance of contracts, so as to facilitate the smooth development of the Company's business.



Promotional short videos on "civil service ethics is about you and me"



Promotional short video on "official confidentiality"



Civil service ethics newsletter (4 issues)

In order to build up the concept of government ethics among employees and boost the promotion of government ethics business, we issued a quarterly civil service ethics newsletter in 2021, which contained basic laws and regulations (such as the Ethics Guidelines for Civil Servants) and case illustrations, as well as a collection of current issues, parent-child attractions, and aviation tips, etc. The newsletter was sent to our employees by email and posted on our website and eHRD system for our employees to read, and by combining the newsletter contents, we also organized a quiz contest with prizes to raise employees' awareness of government ethics work and regulations in order to achieve the practical benefits of government ethics promotion.



Civil service ethics academy

The short promotional materials are produced with a light and humorous narrative style, combined with popular elements of the Internet community, in order to enhance the willingness of our employees to read, to implicitly cultivate the concept of integrity, and to raise the awareness of law-abiding.

廉政小學堂 你應該知道的廉政知識(1) 申領小額款項篇

桃園國際機場股份有限公司 政風處
2021/9/15





Corruption risk assessment system

TIAC has established a corruption risk assessment system, which divides the risk for civil service ethics into "low risk", "medium risk", and "high risk" according to the risk level. After the administrative investigation of a risk incident by the civil service ethics department, we will pay more attention to the business execution of each unit and continue to conduct government ethics education and promotion to deepen the ethics awareness of employees. In order to avoid the occurrence of risks, we follow the law and pursue responsibilities in accordance with the regulations in the event of a violation of the anti-corruption act. In 2021, there were no incidents with high risk in civil service ethics.

The level of risk for civil service ethics	Type	Handling method
Low risk for civil service ethics	Violation of ethics guidelines	Sign-off for administrative action.
Medium risk for civil service ethics	Improper control of administrative procedures and contract performance management	More attention to the business promotion of the relevant units.
High risk for civil service ethics	Violation of the anti-corruption act	Referral to judicial authorities for investigation and pursuit of administrative responsibility.

Civil service ethics whistleblower reporting channel



 **Civil service ethics platform**

In order to prevent the procurement of this project from defective bidding, delayed construction, contract disputes, exchange of interests, and improper external interference, TIAC has set up the "civil service ethics platform for Terminal 3" area on its website to openly and transparently disclose the information of each construction part in order to eliminate risks for civil service ethics and establish an ethical management culture. The civil service ethics platform will hold regular internal meetings to explain the project and disclose it on the platform, while external stakeholders can use the platform to check the progress of the project, report issues or concerns and communicate. The three main objectives of the civil service ethics platform are to build a high-quality and dignified work environment, to combine the power of external control with supervision, and to assist in the completion of the project on time, of good quality and without defects. A total of 31 people participated in the 26th civil service ethics symposium for ethical management training.



Transparent and open information disclosures

TIAC discloses "origin, content, and benefits" of all construction projects and provides regular updates on project progress.



Incentivize reports of legal violations

TIAC encourages the public to report legal violations and provide information on reporting hotlines and strengthen advocacy on handling channels for various authorities.



Media contact and communication

TIAC releases information relating to progress of procurement proposals, interactions with external parties, issues of concern, and project status with media reference from time to time.



Seminars and liaison meetings

TIAC convenes liaison meetings to present project contents regularly; reasons for establishing the TIAC anti-corruption platform; challenges in bidding, contract revision, and contract management stages; potential risks; feedback from the public; and disputes with participating legal, investigative, anti-corruption, or engineering units and jointly discuss solutions.



Handling of corruption incidents

In the event of a violation of TIAC's Ethical Guidelines for Anti-Corruption, TIAC will be able to describe relevant incidents and methods of handling to judicial units and the Public Construction Commission at any time through exchange meetings, and related information will also be sent to all colleagues.



Participate in all stages of the procurement process

TIAC has joined the procurement procedure review team, and participates in supplier discussion meetings and contract revisions meetings to fully understand the progress of procurement proposals and other relevant information.



Coordinate appeals and disputes assistance

TIAC's anti-corruption platform coordinates and guides suppliers in voicing doubts according to legal procedures to avoid private lobbying, allowing TIAC to keep abreast of disputes and related evidence, and collects similar cases which can be provided to the authorities for further handling.





Civil service ethics platform series of activities

In 2018, the Company established the "Civil service ethics platform for Terminal 3 construction project" to provide specialized advice through regular communication across units such as prosecution, investigation, civil service ethics and procurement act competent authorities, as well as to prevent improper external interference and propel various measures for the promotion of profit and prevention of corruption, in order to enhance the overall ethics and efficiency and jointly establish a clean and transparent procurement environment.

In 2021, TIAC promoted the civil service ethics platform, and in addition to corruption prevention (publicity for related regulations, early warning actions, administrative transparency, project audits, etc.) and fraud

prevention measures, it also strengthened civil service ethics promotion and interdisciplinary communication. The series of activities were held 3 times with 97 participants; the President and Vice President of Taoyuan International Airport Corporation Ltd. also attended the 9th and 10th liaison meetings to give their support, and reported the transparency measures of the platform as a highlight of MOTC's administration in 2021. This shows the importance TIAC attaches to the platform and its determination to promote government ethics, so that the construction of Terminal 3 can be completed "on time, of good quality and without defect" and that we can work together to smoothly promote major construction and enhance the credibility of the country. ; Civil service ethics platform.





26th Civil service ethics symposium

In order to carry through the civil service ethics policy and enhance the efficacy of administration, TIAC holds regular ethics symposiums to discuss project issues, analyze business susceptibility to abuse or review major ethics cases, and formulate specific anti-corruption measures to deepen the prevention work and improve the mechanism of institutional examination.



Anti-corruption Platform

ISO 37001 Anti-Bribery Management System

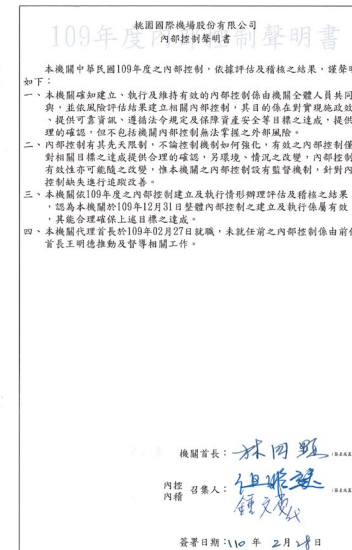
Bribery is a significant issue for organizations and can lead to risks of legal action, increased costs, damage to reputation, etc. The Anti-Bribery Management System (ABMS) helps organizations prevent, detect and respond to bribery incidents by establishing a successful framework to manage bribery risks and providing guidelines for implementation to ensure compliance with international standards for anti-bribery.

On November 23, 2021 in the 26th civil service ethics symposium, TIAC invited former deputy director of the Agency Against Corruption, Ministry of Justice, Yang Shi-Jin, to share the conceptual framework of ISO 37001 Anti-Bribery Management System and the related initiative of the Executive Yuan to implement the system. TIAC will evaluate the introduction of the system in a timely manner in line with the direction of government policy in order to control the risk of bribery and enhance the ethical governance image of TIAC.



Internal control and internal audit

TIAC has designed its internal control system in accordance with the "Working Guidelines for Supervision of Government Internal Control" and the "Regulations Governing Establishment of Internal Control Systems by Public Companies", with the objectives of achieving effective administration, providing reliable information, complying with laws and regulations, and safeguarding assets. The internal control system has been approved by the Board of Directors and is complied with and implemented by all personnel of the Company to promote sound operation of the Company and to reasonably ensure the achievement of internal control objectives.

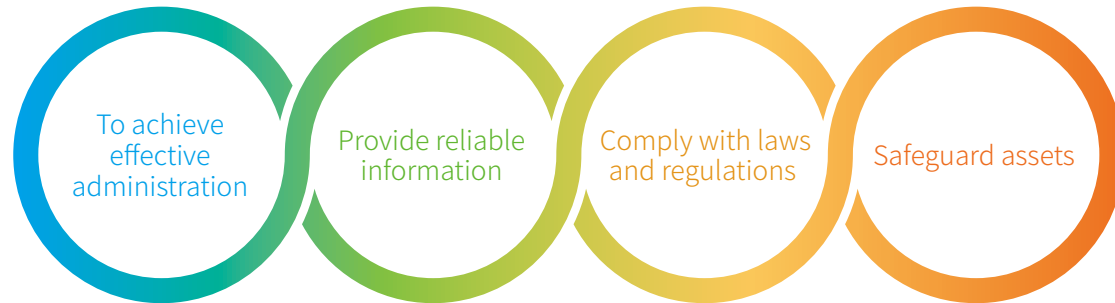


Statement of Internal Control System of Taoyuan International Airport Corporation Ltd.





Internal control objectives



Three lines of defense for internal control system



Operating units and department director

- 1 Annually review operational targets, relevant risks, and effectiveness of corresponding controls in internal control systems.
- 2 Implement risk assessments and self-assessments of internal control.
- 3 Internal control systems and relevant regulations are vigorously observed, and timely reviewed.

Supervisory units and senior management

- 1 Review current material issues and identify potential risks.
- 2 Monitor the establishment of effective internal control systems in all departments, and integrate and implement said systems.

Internal audit

- 1 Implement risk-oriented audit processes and provide suggestions for improvement of internal control systems.
- 2 Review self-assessment results for internal control systems in all units.
- 3 Track implementation of improvement plans for internal control systems.

Internal audit

Taoyuan International Airport Corporation Ltd. has established the "Implementation Guidelines for Internal Audit System" and performs internal audits based on them. An annual audit plan is prepared on a regular basis and submitted to the Board of Directors for discussion and approval before implementation, and the internal audit manager reports to the Board of Directors periodically on the execution of audit operations. The internal control deficiencies and irregularities identified during the audit process are disclosed in the audit report, and the managing department is informed to take appropriate improvement measures in a timely manner, and to list and track them until the improvements are completed, so as to assist the Board of Directors in confirming the efficacy of the internal control system operating procedures and their implementation and compliance, and to evaluate the extent of their impact on the achievement of operational objectives, and to reasonably ensure the continuous and effective implementation of the internal control system.

In order to reasonably ensure that the objectives of the internal control system are achieved, in addition to assessing the efficacy of the implementation of the internal control system through internal audits, we also release a self-assessment plan each year and promote each unit to conduct self-assessment and make improvements to the self-assessment situation and any deficiencies or recommendations identified. The relevant information and results are reported to the Board of Directors for the purpose of assessing the efficacy of the overall internal control system and issuing a statement of the internal control system.



The audit plan for 2021 is based on the following four priorities, with nine internal control operations planned.

<p>1 Business interruption prevention and cyber security management</p>	<ul style="list-style-type: none"> ① Airport safety and security cycle: "Abnormal incident response and operations disruption prevention management - Prevention of biological pathogenic infection and spread" ② Computerized information system control cycle: "Cyber security inspection control"
<p>2 Operational collection and capital planning management</p>	<ul style="list-style-type: none"> ① Airport operations and collection cycle: "Collection" operation ② Property and equipment management cycle: "Asset leasing" operation ③ Financing cycle: "Borrowing capital accommodation" operation
<p>3 Major construction projects and construction inspection management</p>	<ul style="list-style-type: none"> ① Construction project cycle: "Major construction projects management" operation ② Construction project cycle: "Construction and inspection" operation
<p>4 Authority and responsibility management</p>	<ul style="list-style-type: none"> ① Management control operation: "Delegation of duties and management of acting persons" operation ② Payroll cycle: "Rewards and penalties" operation

After compiling the audit results for 2021, we found some deficiencies and anomalies in the internal control system through the operation of the internal audit system. We analyzed the common issue patterns and causes, and fed them back to the internal control operations, which were recorded and managed by the managing department for review and improvement and the implementation of improvements were reported regularly, so that the management level can comprehend and supervise the improvement situation to achieve the efficacy of operational efficiency and reducing omissions.

Participation in The Institute of Internal Auditors, Chinese Taiwan

In order to continuously improve the sound development of the internal audit system, the Company is a member of the Institute of Internal Auditors, Chinese Taiwan and sends its personnel to attend related seminars and activities (e.g., monthly meetings, annual forums) for business exchanges, and participates in training courses to improve specialized knowledge.





1.5 Supplier management

As a state-owned enterprise, TIAC is required to follow the Government Procurement Act, fair and open procurement procedures, and the spirit of legislation to enhance the efficiency and functionality of procurement. At the same time, in the E-procurement integration operating system, the sustainability or CSR indicator is proposed to be included in the evaluation items, and employees are encouraged to select this indicator to be included in the procurement contract when handling relevant tenders. In addition, TIAC is in the downstream of the industry, so our suppliers mainly provide services in the labor, property, and construction categories, and there are dozens of tenant companies in Taiwan Taoyuan International Airport that exist and prosper with us. We insist on complying with the requirements of national laws and regulations, implementing the provisions of the government procurement act, and actively pay attention to our partners' compliance with laws and regulations

related to environmental protection, labor, and OSH. TIAC is committed to co-existing and sharing the prosperity with all contracted vendors to make the Company an excellent workplace.

In 2021, we conducted 4 supplier face-to-face training sessions for a total of 436 participants. Among them, the "Seminar on understanding construction procurement contracts from court rulings" that we jointly organized with MOTC was designed for the MOTC and its affiliated agencies and our internal employees to provide a detailed explanation of the types of construction disputes that often occur and how they are handled, using real-life cases to help clarify construction disputes and how they are handled, and to protect the rights of those involved in mediation and arbitration, in order to enrich the specialized competences of personnel in procurement through the course to improve the efficiency and quality of government procurement.





Supplier policies and commitments

In accordance with the "Government Procurement Act", we conduct supplier management in accordance with fair and open procurement procedures. Ensure that the quality, delivery and contract price of the procurement meet the requirements. Cooperate with suppliers as partners for co-existence and mutual prosperity.



Suppliers shall not violate environmental protection laws and regulations, and shall give priority to the procurement of government-approved environmental protection products, recycled resources generated within the country, or recycled products made from a certain percentage or more of recycled resources. Suppliers shall cooperate with the government and authorities in implementing policies related to energy saving and carbon reduction (e.g., ISO 14064-1, ISO 50001, ACI Carbon Accreditation) during the contract period to strengthen the awareness of sustainability.



Suppliers should employ people with physical and mental disabilities and indigenous peoples in accordance with the Persons with Disabilities Rights Protection Act, the Indigenous Peoples Employment Rights Protection Act, and the Procurement Act.



Suppliers shall employ workers in accordance with the Labor Standards Act and the Occupational Safety and Health Act. In order to promote and implement workplace safety and health at TIA, and to protect the safety of our employees and the workers employed by contracted vendors, we have established the "Management Regulations for Contracted Vendors Safety and Health" and have corresponding management practices in each stage. For more information on contracted vendors management, see 5.2 Safe and healthy workplace.



Suppliers shall comply with the relevant operating regulations of TIAC. If a supplier violates the regulations and causes abnormalities or damage to the facilities and equipment, unless the contract or the regulations provide for another penalty, the following penalties will be applied: 1% of the contract price for the first time, 5% of the contract price for the second time, 10% of the contract price for the third time, and so on. If the Company's image or reputation is damaged as a result of negative news, reports or negative internet comments, the penalty shall be increased by one to five times depending on the severity of the case.



The contract shall specify the mechanism for termination and suspension of the contract in the event of a breach of the relevant regulations by the supplier.

For the occupational safety and health management, counseling and training of contractors, please refer to [Chapter 5.2 Safe and healthy workplace](#).



Chapter 2 Sound operations and compliance with safety guidelines

Key response to stakeholders

- Employees
- Passengers
- Aviation sector operators
- Government
- Collaborating partners



Chapter summary

Airport safety is the most important mission and responsibility of TIAC. To this end, we have embarked on a variety of comprehensive flight safety measures to ensure the stability of our aviation industry, while diligently controlling all details in the face of the pandemic to protect the health of our citizens.





Material topics management approach: Airport security, risk management, information security



Policies and commitments

Provide appropriate resources to support the operations of the safety management system, flight safety and information security, implement training, and encourage effective safety notification and information exchange, and make flight safety the topmost responsibility of all management and personnel to develop an organizational safety culture.



Goals

Short-term goals

- Deal with the notification of hazard issues and eliminate the hazard factors.
- Review safety performance on a monthly basis and track improvements at each safety management meeting.
- Ensure that information systems continue to operate without interruption.

Medium- and long-term goals

- Promote a culture of safety and fairness at Taoyuan International Airport Corporation Ltd.



Complaint mechanism

Please refer to: [Stakeholder communication and material topics of 2021](#)



Evaluation mechanism

Regularly inspect all safety management systems and facilities and review all safety performance and objectives through the Safety Committee, as well as review and recommend improvement measures. In addition, the Airport has a risk management procedure in place to track and review performance on an annual basis.



Specific actions

- We convened three "Safety Committee" meetings to discuss and develop high level issues related to safety policy, resource allocation and safety performance.
- Educated the residents around the Airport about the hazards of pigeon keeping to aviation safety and to patrol the area around the Airport where keeping pigeons is prohibited from time to time.
- Conducted 13 training sessions for the Special Civil Defence Corps, with 1,032 participants.
- Conducted 7 disaster drills and exercises with 854 participants.
- Conducted 16 aviation safety education and promotion sessions with 1,592 participants.
- Conducted flight safety education and awareness campaigns with prize-winning quiz contest for a total of 6,188 participants.
- Obtained ISO 27001:2013 certification in October 2021.
- In the face of the pandemic, the five major operational priorities are "basic operations", "pandemic prevention", "bailout", "stimulus", and "renovation".






2.1 Risk management

TTIA is the most important international airport in Taiwan. If a hazardous event or a risk issue is not properly managed, it will have a serious impact on us and Taiwan, therefore, we have established risk management procedures, implemented appropriate management measures, and tracked and reviewed the situation every year to pursue the highest standard of airport safety and achieve the vision of sustainable development.


Risk management mechanism

Taking into consideration the business characteristics, size and number of employees, risk, materiality principle, and cost effectiveness, we have designed an appropriate and effective internal control system taking reference from the "Conceptual Framework for Government Internal Control", and have a comprehensive risk management mechanism, which is complied with and implemented by all employees of the Company after the Board of Directors' resolution.





Risk identification

TIAC sets operational level objectives based on the overall level objectives and operational categories, and takes reference from the risk assessment mechanism in the "Handbook for Risk Management and Crisis Handling of the Executive Yuan and affiliated agencies" issued by the National Development Council, and each division and office identifies the risk sources that affect the overall and operational level objectives in accordance with the work tasks involved in the operational categories and the corresponding control objectives to identify the risks that affect the overall and operational level objectives that cannot be achieved and compile our risk management list.


Risk analysis

After risk identification, we will set the ranges according to the level of impact and probability of occurrence and analyze the ranges of risks in terms of the level of impact and the level of probability of occurrence.


Risk assessment

After risk analysis and consideration of manpower, resources, and organizational environment, risks are classified into risk ranges according to the level of their degree of impact and probability of occurrence. At present, among the risks identified by the Company there are no extreme or high ones, while those with medium risk have been controlled and reduced to the level of low risk to reduce the impact on TTIA.

-  **Low risk** | Respond and handle with the relevant control operations according to the existing design
-  **Medium risk** | The scope of management's responsibility must be defined.
-  **High risk** | Management is required to supervise and provide resources for the development of their plan.
-  **Extreme risk** | Management needs to take immediate action.



Control System

The Company has a control mechanism (including operating procedures, control points, guidance documents and information, etc.) for each risk, which is managed by the responsible unit and a self-evaluation of the mechanism and the efficacy of its implementation is conducted at least once a year to continuously contain the risk at a low level.

Risk cycle categories	Management objectives
Operation and receipt cycle	TIAC plans to formulate airport development and operational plans which will control flight operations, manage transportation and storage of aviation fuel, manage on-site companies and passenger services, ensuring continued operations at TIAC.
Purchase and payment cycle	In order to effectively manage TIAC's suppliers and contractors, TIAC conducts audits at all stages of procurement to ensure that construction, financial, and services projects adhere to government and corporate regulations, and to avoid legal violations or improper behaviors from suppliers and contractors.
Safety and security cycle	TIAC considers airport safety to be an important mission and responsibility. TIAC not only adheres to international standards and regulatory requirements of governing authorities, but also actively implements various management measures for handling hazards/abnormal items, security management, and occupational health and safety to ensure the safety of colleagues, on-site companies, and passengers.
Construction management cycle	TIAC is currently conducting several construction projects. To prevent accidents during construction, TIAC implements management and contingency plans through the entire life cycle of these projects.
Salary and wage cycle	TIAC does not conduct any production or manufacturing activities. The main responsibility of the Corporation is to serve passengers and manage on-site companies. All employees are considered important Corporation assets, which is why TIAC implemented complete human resource management plans and measures to retain talent.
Finance cycle	TIAC manages loans, corporate bonds, and other securities to ensure appropriate short- and long-term usage of funds. Financing of corporate bonds and other securities, and adherence to repayment plans for loans prevent financing problems from occurring.
Information system cycle	TTIA uses many systems and programs, necessitating strict control of all information and systems, establishment of corresponding user access permissions, and periodic implementation of risk assessments and information security checks to ensure information security.
General control activities	TIAC has formulated corresponding control plans for all internal management systems and mechanisms supported by internal controls and audits to ensure that all operations adhere to legal requirements and corporate regulations.





2.2 Airport safety management

Safety is a key core value of Taoyuan International Airport Corporation Ltd. We are committed to establishing, implementing, maintaining, and continuously improving related strategies and procedures to ensure that all flight activities are conducted with proper allocation of resources and with the goal of achieving the highest level of safety performance and compliance with regulatory requirements while providing services.

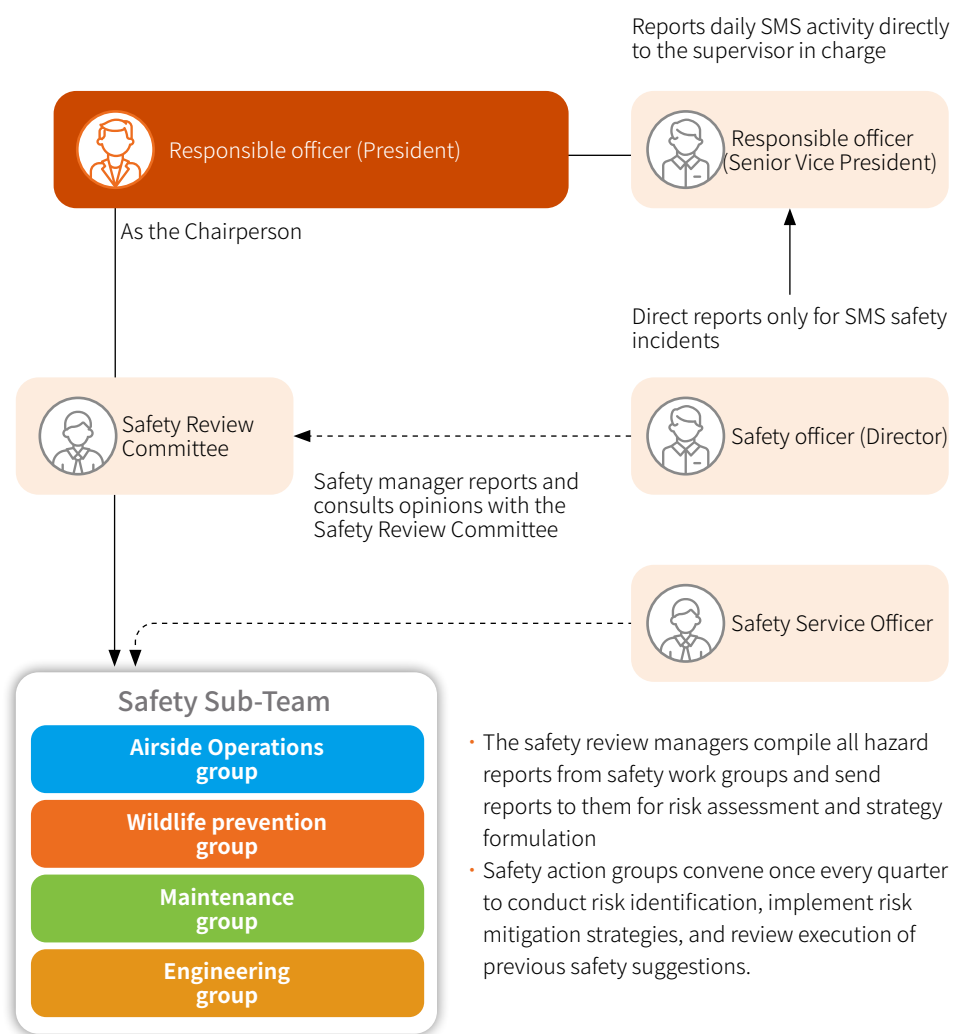
Airport safety management System

We follow national policies and requirements as well as international standards to establish safety management measures on both the airside and landside of TTIA, and have developed a "Safety Management System (SMS) Manual". In addition to providing it to our internal employees, which we also distribute it to the Aviation Police Bureau, Air Navigation and Weather Services, airlines and ground services companies at TTIA to ensure that all of them understand the airport safety procedures. In addition, all of our internal management and all of our employees are responsible for achieving the highest level of safety performance.

In order to effectively manage and carry through safety at TTIA, our Safety Committee meets three times a year, with the President as the responsible officer and members including other senior management, the Aviation Police Bureau, the Air Navigation and Weather Services, the airlines and the ground services companies, in charge of discussing and defining high-level issues related to the Company's safety policy, resource allocation and safety performance, and identifying the following issues.

- 01 Ensure the effectiveness of the Corporation's safety management system
- 02 Monitor that all improvement measures are executed appropriately and timely
- 03 Monitor safety performance based on the Corporation's safety policy and safety goals
- 04 Ensure proper use of relevant resources, to achieve better safety performance than required by law

Safety management system function and organizational chart



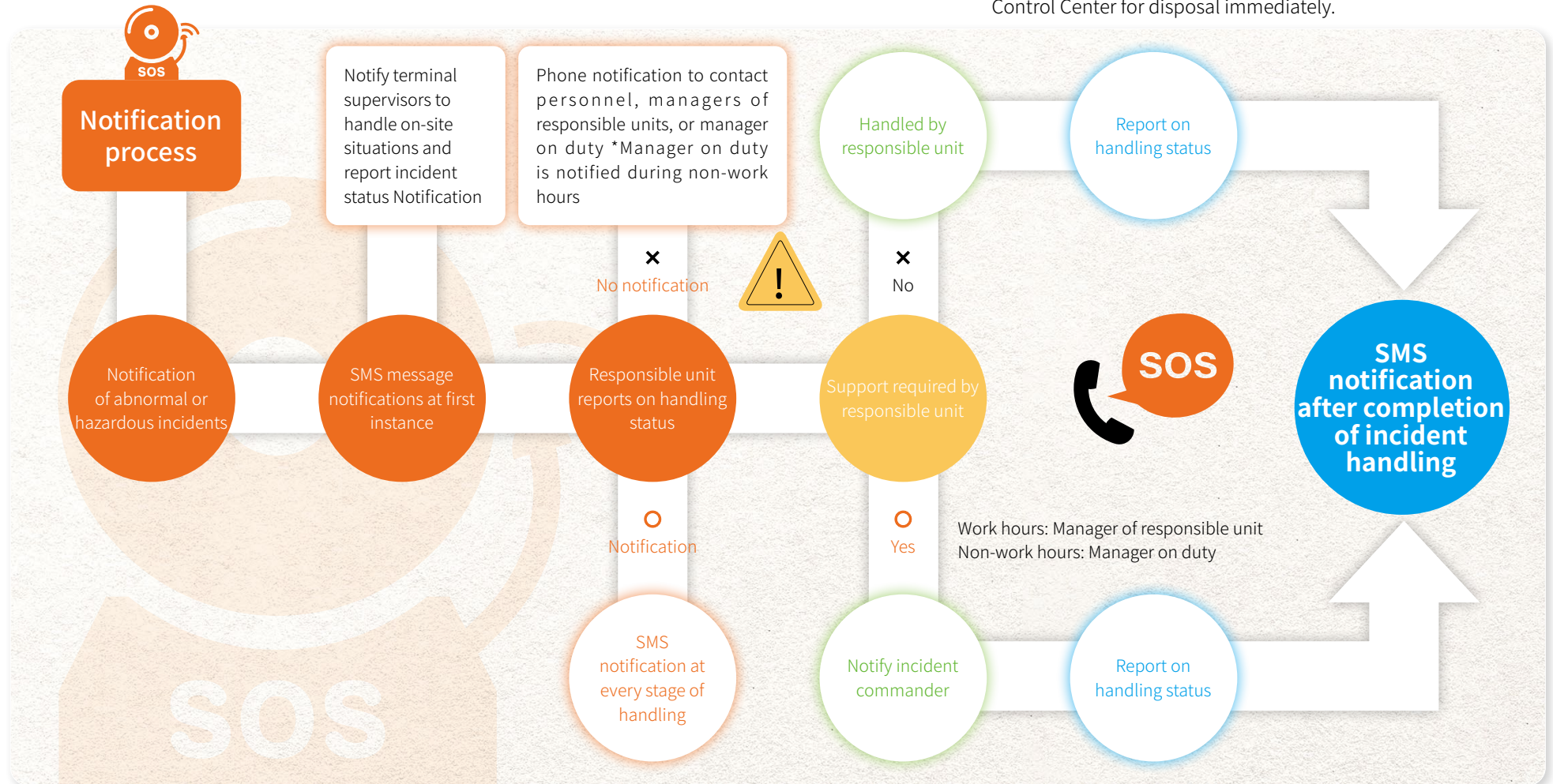
- The safety review managers compile all hazard reports from safety work groups and send reports to them for risk assessment and strategy formulation
- Safety action groups convene once every quarter to conduct risk identification, implement risk mitigation strategies, and review execution of previous safety suggestions.



Operations Control Center

In order to implement TIAC's monitoring of airport safety and to strengthen the efficiency of airport operations, an Operations Control Center is responsible for 24-hour management of airport landside operations, notification of abnormal/disaster events, and emergency handling of each event.

- **CCTV surveillance:** Personnel are assigned to monitor with 24-hour surveillance cameras, and TV walls are set up for the key area cameras.
- **Regular patrol:** Hourly security personnel are assigned to patrol the various areas of the terminals and report abnormal events to the Operation Control Center for disposal immediately.





Annual safety performance indicators and targets

In order to establish a good safety culture at the airport, TIAC uses safety performance indicators and safety performance targets to establish and measure the safety performance of the airport, as well as to improve safety performance through continuous monitoring, evaluation, and regular review and adjustment of safety targets. In order to establish a good safety culture at the airport, TIAC uses safety performance indicators and safety performance targets to establish and measure the safety performance of the airport, as well as to improve safety performance through continuous monitoring, evaluation, and regular review and adjustment of safety targets.

In 2021, only two performance indicators/targets exceeded the warning value, the first being minor "vehicle overrun aircraft incidents", which were analyzed and found to be mainly driven by human factors, such as failure to follow standard operating

procedures, unfamiliarity with the operating environment or equipment, etc. The Company has conducted a review at each safety meeting and proposed improvement measures, including implementing education and training, strengthening communication and penalties, and gradually reducing the actual occurrence value and the statistical results of the safety meetings in the first quarter of 2022 had been in line with the safety performance target. In addition, the Company handles and tallies "aircraft re-takeoff/unable to takeoff due to runway incursions caused by vehicles or other ground equipment" in accordance with the "National Civil Aviation Safety Plan" promulgated by the Civil Aeronautics Administration. As a result, the past five-year retrospective value has been higher than the required target. We will continue to refine our safety culture to eliminate potential hazard risk factors and ensure flight safety.





Safety performance indicators and actual performance (Mild standards)/ per 10,000 takeoffs and landings/ per 10,000 air bridge operations/per 1,000 construction personnel / airplane operation per 10 thousand flights		2022 standard value	2022 alert value	2021 standard value	2021 alert value	2021 actual value
1	Vehicle overrun aircraft incidents	2.75	4.22	0.81	1.14	2.71
2	Speeding incidents of vehicles or other ground support equipment	1.18	1.92	0.81	2.05	1.12
3	Accidents of vehicles or other ground support equipment	3.54	5.53	2.25	4.35	3.09
4	Bird strike	0.69	1.27	0.98	1.57	0.77
5	Violation rate of construction personnel	0.1	0.167	0.08	0.37	0
6	Improper use of air bridge or equipment failure	1.51	3.65	0.31	1.03	0.65
7	Failure of floodlights or GPS coordinate signs	0.16	0.37	0.12	0.26	0.11

Safety performance indicators and actual performance (Severe standards)/ Below 2 per rolling five-year average per million takeoffs and landings	2022 standard value	2022 alert value	2021 actual value
1 Five-year rolling average of aircraft re-takeoff/ unable to takeoff due to runway incursions caused by vehicles or other ground equipment (Actual incidents / 5 annual total takeoffs and landings* one million)	2	2	3.02

Safety performance indicators and actual performance (Severe standards) Below 2 per 100,000 takeoffs and landings	2022 standard value	2022 alert value	2021 actual value
1 Rate of aircraft shut down for maintenance caused by improper ground operations or equipment failure	2	2	1.17





✈️ Handling of airport hazard issues

TIAC is committed to developing and encouraging a fair culture of aviation safety-related incident notification, collecting, analyzing, and sharing aviation safety-related incidents, identifying hazards that may cause aviation safety-related incidents, taking appropriate risk reduction measures, and providing feedback on the results to the notifier. We follow hazard identification and safety risk management procedures, including a hazard notification system, to eliminate or reduce safety risks that may result from operations or activities, and continue to do so in the spirit of "seeing the whole through observation of the part and being cautious about what seems to be the beginning of an unwholesome trend", and encourage stakeholders to report hazard issues and various notification cases to continuously improve safety performance.

	2019	2020	2021
Airside facility	29	64	73
Landside facility	7	7	9
Security incidents	1	1	2
Airside operation	13	18	45
Flight operational management	3	0	0
Bird strike	0	0	3
FOD (note)	2	5	3
Other	1	1	16
Total	56	96	151

Note: Foreign Object Damage, abbreviated as FOD

Through statistics, we know that our hazard notification system (airside facility) and (airside operation) categories are higher than other categories, and after analysis, we understand that users tend to report facility maintenance and violations, which shows that there is still room for improvement in the safety culture at TTIA. We will continue to conduct promotional activities or design posters for safety promotion.

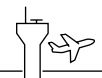
TIAC encourages all tenant companies and airlines to report any safety-related issues, even if they are minor, so that all safety-related issues can be managed and eliminated to ensure the safety of TTIA. With our encouragement, the number of safety issues reported each year has been on the rise, indicating that we have established a good safety culture at the airport and that all stakeholders are taking it seriously.

TIAC upholds the principle that "no one will be blamed or punished for making hazard notifications through the hazard notification system unless they deliberately violate or ignore the relevant regulations and procedures". The company will continue to track improvement measures. If the number of violations exceeds the target value of safety performance, the Company will increase the disciplinary action, and those who violate repeatedly will be punished according to law.



Promotion: Safety culture promotion poster

Employees are encouraged to report hazards or (suspected) violations, and no disciplinary action will be taken against employees who reveal safety issues, except for illegal acts, gross negligence, or deliberate disregard of rules and procedures, in order to prevent them from becoming serious.





 **Preventing bird strikes**

In order to prevent bird strikes, we cut down miscellaneous forests within the airport area, lay bird nets in ditches, conduct bird surveys, and improve vegetation species, as well as cooperate with the Aviation Police Bureau in bird removal operations.

We cooperate with the Wild Bird Society of Taoyuan to announce and predict bird activities for each month on the official website, including information on active bird species, activity areas, flight height when moving, and activity times. The main risk bird species is the large cattle egret, and dozens or hundreds of them will fly over or stay at TTIA from April to May and August to October every year. Over the years, through bird surveys and experiments, we have used nighttime to mow the lawn around the runway to avoid attracting cattle egrets to come closer to forage during the daytime mowing when navigation is busy. We also found that cattle egrets do not like the grass too high, so we keep the grass around the runway at about 30 cm long to prevent risks to flight safety.



Non-stopping bird strike prevention Safely sharing the same sky

We appointed Birdway Wildlife Management Co., Ltd. to conduct an airside environmental and pest survey at the airport on August 16th and 17th, 2021. The survey focused on the biology of the grassland adjacent to the river canal, the condition of the bird nets, the environment of the ditch facilities and the ecology of the grassland of the South Runway.

Survey results	Observations	Suggestions for improvement
Construction mound	Arbor-type pioneer plants, such as paper mulberry, Elephant's Ear, Jamaican cherry, mulberry, etc., grow here and such plants with barrier and habitat functions will easily attract migratory birds to stay here at night.	Regularly remove the woody plants growing on the mound to prevent birds from using them.
Grassland biota	The soil condition shows that there is a high abundance of insects and invertebrates (earthworms, snails, etc.) in the north and south sides. In case of heavy rainfall, the soil will be flooded and earthworms will come out of the ground, which will become a temptation for birds to gather and feed.	The number of invertebrates can be reduced by applying lawn conditioner on a trial basis.
Water plane net	Waterfowl (e.g., little egret, cattle egrets, etc.) are often seen trapped between the ditch and the plane net during the survey along the perimeter of the net. Even though the phenomenon does not seem to directly affect flight safety, it is recommended to exclude the prolonged stay of birds due to the temptation in the ditches.	<ul style="list-style-type: none"> It is recommended to drape and densely place plastic chains over the openings of plane nets, where waterfowl often enter and exit. It is recommended to retrieve the tilapia in the ditches regularly to eliminate the foraging temptation of birds. If funding permits, use bird prevention nets with a smaller mesh (mesh below 2 cm).





Pigeon rearing ban around the Airport

Article 3 of Regulation on the Prohibition of Pigeon-raising around Civil Aeronautics Administration stipulates that pigeonraising is banned in the 5km radius to the center of the airport (the center being the middle of the two sides of the runways) and 35 degrees on both sides. TIAC propagates the threat of

pigeon-raising to airport safety to local residents non-periodically, and patrols the prohibited areas for new establishments. Irregular patrols and inspections are also conducted on pigeon houses beyond the prohibited areas that may still affect airport safety.



Drone control operations

TTIA is an important gateway of air transportation in Taiwan and a tier-1 national critical infrastructure approved by the Executive Yuan. Drone interference is critical to aviation safety and national security, and has a significant impact on the safety of the airport and airspace operations. This is why the Airport includes the drone interference

in the vulnerable stock taking. The Company has adopted the 3Es (Education, Engineering, and Enforcement) approach to drone prevention in accordance with government policy, and there were no drone incidents affecting normal airport operations in 2021.



The Aviation Operations Division shall use the drone defender, or the aviation police or local police force will be armed with perform the intervention operations, and the Duty Command Center will notify the local police force to send personnel to locate the drone that has returned or landed back in place automatically and the perpetrator



Education -Promotion

- ① Provide information on procedures and flight safety on our website to educate the public about the laws and restrictions on the use of objects and drones that compromise flight safety.
- ② Draw a map of the area around the Airport where drones are prohibited and restricted
- ③ Inform the public by means of multi-media publicity.



Engineering - Source management

- ① When the public applies for the type certification of low-power RF motors, the requirements and explanations should be attached to the package. The National Communications Commission is requested to call for the certification authority to demand the applicant to attach the promotional requirements to the package of the equipment when accepting the type certification of low-power RF motors for camera drones, remote control drones or their remotely controlled devices.
- ② Set up a built-in geo-fencing system for drones, and invite drone manufacturers to build a geo-fencing system that complies with the laws and regulations of our country to prevent drones from invading the surrounding area of the Airport from the source, and popularize it to all commercial drones on the market.



Enforcement - Establishment of investigation and penalty mechanism

- ① Establish procedures for responding to and investigating remotely controlled drone interference at TTIA, including notification and contact, investigation, detection and handling procedures, and establish a notification window and contact information to form a regional joint defense mechanism.
- ② If a drone is found in the vicinity of the Airport, take-off and landing will be suspended, and it will be reported to the aviation police and local government police in accordance with the aforementioned investigation and handling procedures to assist in the investigation and handling, and if the drone is no longer found or confirmed to have been removed, take-off and landing will resume.





 **Special Civil Defence Corps**

TTIA is a national critical infrastructure and is required by the Civil Defense Act to establish a Special Civil Defence Corps to respond to natural, man-made, information and communication network, and biological pathogenic disease pandemics or other disasters. The Special Civil Defence Corps of TTIA is organized into 18 sub-corps and 13 direct subordinate teams in accordance with the mission characteristics of the public and private units in the Taiwan Taoyuan International Airport.

In order to build up the resilience of the airport, the Special Civil Defence Corps integrates the stakeholders in the Taiwan Taoyuan International Airport and proposes the idea of "disaster prevention specialists" to promote "disaster prevention awareness and manpower training", and leads the sub-corps and the direct subordinate prevention teams to promote collaboration to achieve the goal of self-help, mutual help, and public rescue, and to enhance the energy of compound disaster prevention and rescue. The goal of the Special Civil Defence Corps is to train 500 disaster prevention specialists to enhance airport safety before the completion of Terminal 3.

Disaster prevention specialist certification education and training



This is the start-up year of the "disaster prevention specialist" certification education and training program between the Ministry of the Interior and the corporate section. After two days of training (hands-on practice and written exams) and four refresher courses (Taoyuan Disaster Education Center, CBRN Training Center, perennial education, and customized disaster prevention tabletop games at Taiwan Taoyuan International Airport), participants received accredited certificates such as "disaster prevention specialist certificate, license, and CPR+AED administer training certificate".

Disaster prevention specialist off-site refresher training course



In addition to the implementation of the off-site refresher training for natural disasters, the program also uses a variety of experiential courses (fire fighting VR, smoke experience room, earthquake experience platform, etc.) and the immersive disaster prevention adventure, panoramic disaster prevention artist, and AR augmented reality for upgrading electrical safety in the Taoyuan Disaster Education Center 2.0 to build and strengthen the disaster preparedness and response capabilities of each sub-corps and direct subordinate team.

Off-site situational experience training and exchange visits for special disaster response



In response to the continuous impact of biological pathogenic disaster COVID-19 and African swine fever pandemic on the airport operation, and to enhance the first-line response capability of our "disaster prevention specialists", we are organizing this exchange visit to enhance the disaster prevention and mitigation response of each sub-corps and direct subordinate protection team in the Taiwan Taoyuan International Airport based on the actual needs.



According to the actual needs of the Airport, the Special Civil Defence Corps formulated the "Airport Firefighting, Electricity, and AED Safety Inspection Implementation Plan" to inspect the important buildings in the airport by area. The inspection showed that each unit can establish a good mechanism for regular checkup and risk management of firefighting and electricity safety equipment (measures), and review and replace the equipment (measures) year by year according to their service life to ensure that risk control is fully carried through.

The Special Civil Defence Corps conducts many education and training sessions, first aid nursing, and unannounced mobilization training, and introduces diverse education and training modes, including off-site situational experience, interactive and tabletop games, to help participants quickly absorb and enhance their disaster prevention knowledge. A total of 13 sessions were held in 2021, with 1,032 participants.

Disaster prevention and preparedness education and training



We engage the "Taoyuan City Board Games Culture and Education Promotion Association" to assist in the organization of disaster prevention situational tabletop game experience camps. Through situational experience and lively and interesting education and training methods, we can enhance and strengthen the knowledge of disaster prevention and response of each sub-corps and direct subordinate protection team to meet the needs of disaster prevention and response.

Perennial education and training



In accordance with the Civil Defense Act and the requirements of the National Police Agency, Ministry of the Interior, the annual "perennial education and training" program is combined with the annual "disaster prevention specialist" certification training to enhance the efficacy of education and training and improve disaster prevention literacy.

First aid nursing and sensory control hands-on education and training



The knowledge of COVID-19 and self-protection sensory control against pandemics are addressed so as to improve the disaster preparedness and mitigation skills of the various sub-corps and direct subordinate protection teams in the Taiwan Taoyuan International Airport according to the actual needs.





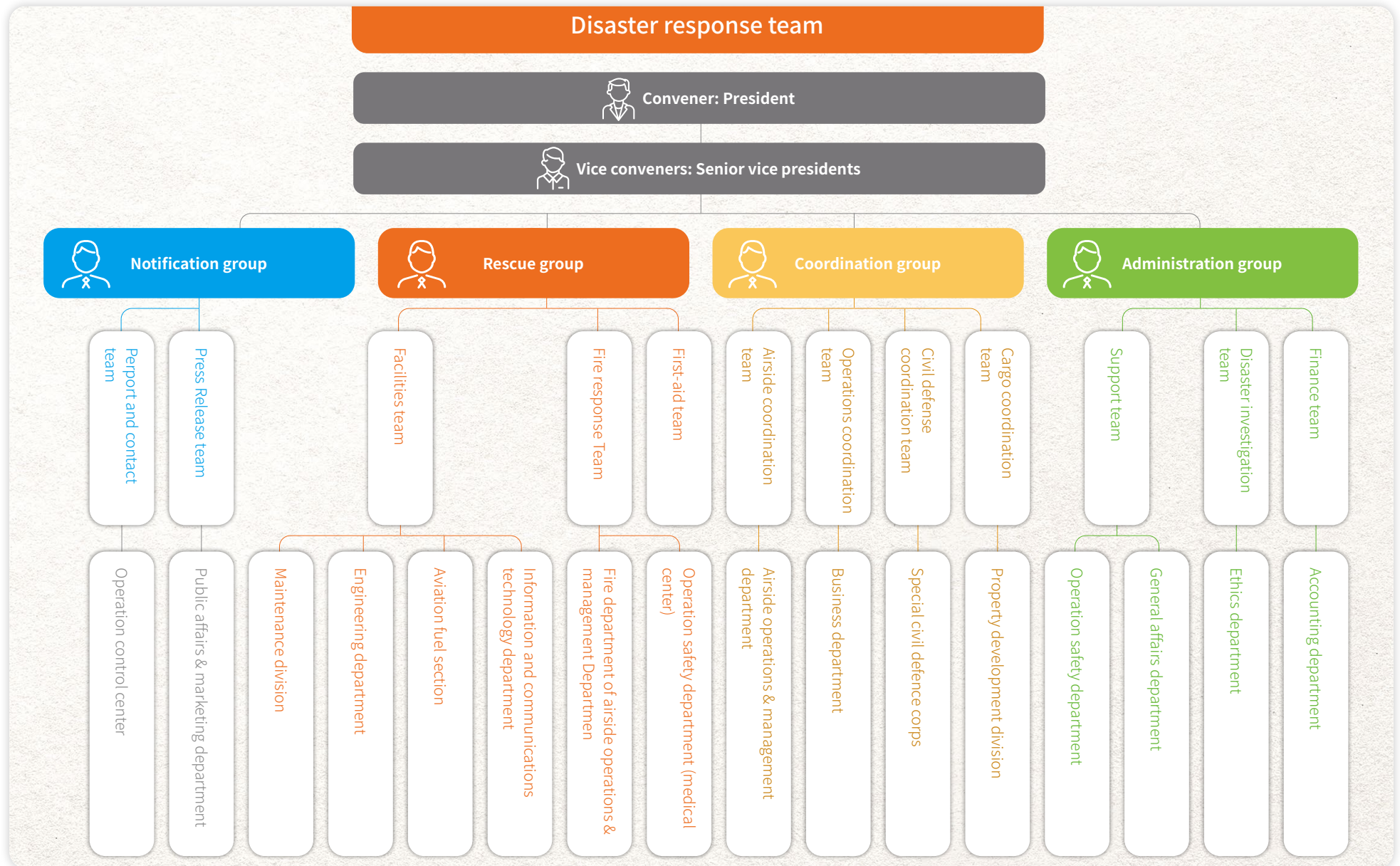
Emergency response

In view of the extensive, specialized and special nature of the airport disaster prevention plan, to ensure the continuous operations of air transportation and to protect the lives and properties of passengers and operators, the "disaster prevention and rescue business plan" and the emergency response procedures for various types of disasters have been established to facilitate rapid and effective response in the event of a disaster. The types of disasters include such natural disasters as wind disaster, flood, earthquake, drought, as well as fire, plane crash, toxic chemicals, biological pathogens, radiation hazards, hijacking, sabotage and explosion threats, aircraft emergency rescue, aircraft landing and take-off, power outages, mechanical equipment failures, cyber security, human hazards, terrorist attacks, and aviation lighting facilities.

After the occurrence of a disaster, the emergency notification procedure will be activated and the Operations Control Center will be notified. Through various means of communication, the disaster status will be immediately notified to the President, Vice President, managers/senior managers, and higher-level units, and the relevant operating units of the Airport will take various necessary contingency measures in accordance with the emergency handling operation procedure to prevent the expansion of the disaster and minimize the impact caused by the emergency, so as to restore the normal operations of the Airport as soon as possible. In addition, the Company has regulations in place that designate the disaster emergency response team to take the lead in emergency situations and disaster incidents and the execution of various disaster prevention operating procedures, so that in the event of a disaster, a "disaster emergency response team" shall be established depending on the actual needs.

In order to ensure that all personnel at TTIA have the ability and awareness of disaster prevention and emergency response, we hold disaster drills or simulation exercises regularly every year. In addition to our employees, we also invite the Civil Aeronautics Administration, the Air Navigation and Weather Service, the Centers for Disease Control (CDC), the Aviation Police Bureau, the Taoyuan Fire Department, the Medical Clinic at TTIA, airlines, ground services companies, and other related units to participate. There were 7 disaster drills and exercises in 2021. The topics include natural disasters, earthquakes, radiation and toxic chemicals, plane crash, etc., with 854 participants..



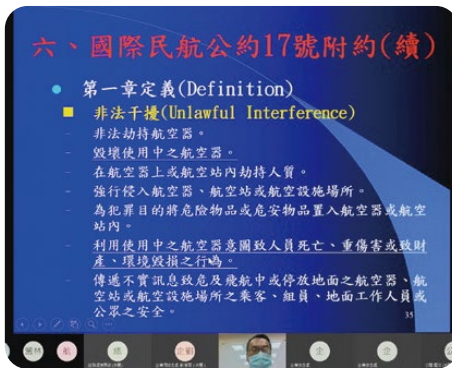




✈️ Aviation safety training and promotion

Aviation safety is not only the responsibility of TIAC, but also the responsibility of all aviation operators. Therefore, we continue to conduct related education and promotion activities every year for the participation of internal and external

stakeholders, hoping to enhance the competencies and awareness of internal and external stakeholders on airport safety, and to promote a good culture of airport safety as the top priority. In 2021, we held 16 sessions with 1,592 participants.



Security education and training (initial and refresher training)

To ensure that civil aviation security personnel are properly trained and have adequate knowledge, skills and attitude to ensure the safety, regularity and efficiency of civil aviation transportation.

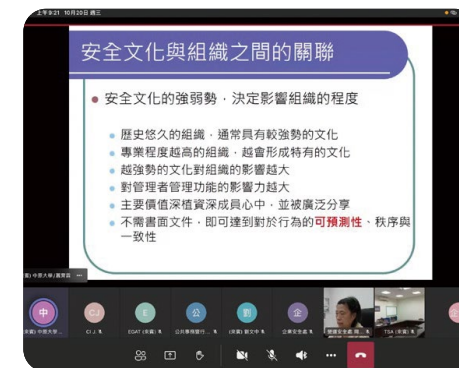
Elementary and advanced safety management system

In order to establish a positive safety culture and to enable personnel to understand and actively participate in the operations of the security management system, appropriate training and education will be provided on an ongoing basis, and effective communication and information sharing will be used to ensure that personnel are equipped to perform safety management system operations in order to achieve safety objectives.



Risk management

Enhance the ability of the Company's employees to assess and manage risks in their daily operations so that they have something to follow in the event of a crisis.



Safety culture promotion

The purpose of safety culture training is to enhance the safety awareness of the Company's employees and to enhance the safety of the Airport by using the course contents to make the airport employees aware of the hazards around them at all times in their daily operations.



Airport access permit awareness and aviation security education and training

To enable airport personnel to understand the rules and regulations of airport access permit and airport security management.

In addition to internal education and training, TIAC also actively promotes the importance of aviation safety to the public. Therefore, we use a variety of methods such as promotional videos, publicity around the airport, and quiz contests with prizes and other activities to let the general public understand aviation safety issues and build a comprehensive aviation safety culture.



Promotional video

Through the aviation safety promotional video produced by the youtuber, and the related videos on Youtube and Facebook, we aim to reach more target audiences of different age groups.

Publicity around the airport

Through the use of LED publicity vehicles, we will make tour promotion in the surrounding villages in Dayuan to reinforce the flight safety awareness of local people and strengthen the flight safety of TTIA.



Aviation safety disseminate

This year's aviation safety campaign theme and key items were combined through a video, followed by an online interactive quiz on the official website and an online lucky draw. During the campaign period, participants could complete the campaign questions and fill in the correct personal information on the campaign website to join the lucky draw and a total of 6,188 people participated.





We hope to deepen the public's understanding of flight safety regulations by providing them with correct knowledge and understanding in an entertaining and educational way.





Information security management

With the rapid development of technology, the business environment of TIAC is all related to information technology. To ensure the normal operation of our business, it is absolutely necessary that all information systems can continue to operate without interruption. Therefore, TIAC has established an information security management mechanism to strictly implement the four information security management objectives of the Company, which are confidentiality, integrity, availability, and legal compliance, in order to achieve uninterrupted operations of TTIA and protect the interests of all stakeholders.

	Confidentiality	Confidentiality must be maintained for any information stored, processed, or transmitted within the information system.
	Integrity	Any information stored, processed, or transmitted within the information systems must be protected to prevent tampering, manipulation, or hacking during operation processes.
	Availability	Ensure that information and systems continue to operate without error, and that legitimate users seeking to use information systems can receive appropriate responses promptly to complete their service needs.
	Legal compliance	Ensure compliance with information system establishment laws and information security regulations.

We attach great importance to information security and began to implement the ISO/IEC 27001 information security management system standard in 2020 and obtained ISO 27001:2013 certification through an impartial third party in October 2021.

TIAC has an Information Security Promotion Committee to manage, examine, implement, review, and promote information security related issues, and the Vice President is the Chief Cyber Security Officer. The Company holds regular cyber security management review meetings and has not experienced any privacy breaches in 2021.

The organizational chart of the Information Security Promotion Committee



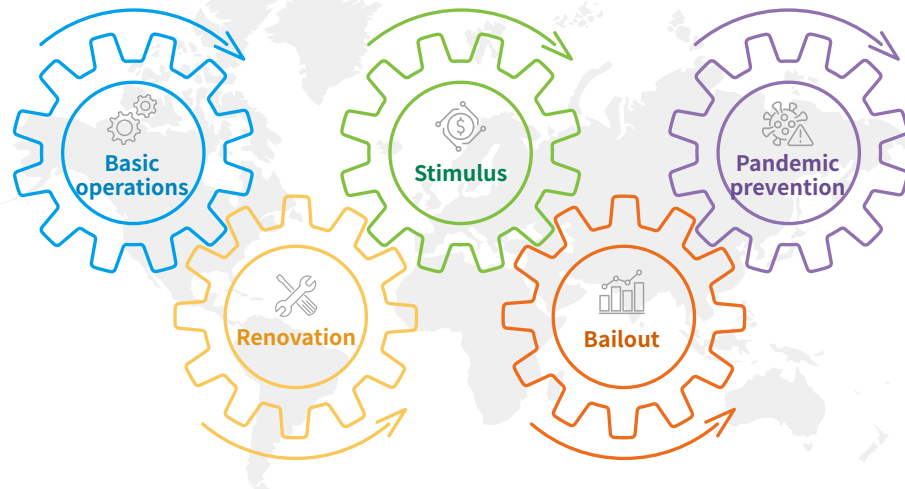
We regularly perform risk assessment, cyber security health checkup and security testing, including information security health checkups (including: network architecture review, network malicious activity review, client malware review, server host malware review and directory server and firewall connection settings review) and security testing (including: vulnerability scanning, penetration testing) on internal hosts, user machines and network devices, and improve the vulnerabilities and reduce the risk of cyber security. In addition, we conduct at least 3 hours of general education training on cyber security for all employees each year, and information security personnel are required to receive more than 12 hours of specialized courses on information security each year, and a total of 2 sessions of general education training on cyber security were conducted in 2021, with a total of 627 participants.





2.3 Pandemic prevention policy

Since the outbreak of COVID-19 (coronavirus disease) in early 2020, TIAC has been fully cooperating with the Central Epidemic Command Center, Nation Health Command Center and the MOTC to actively participate in the pandemic prevention efforts, including the planning and dispatching of charter flights to Taiwan, passenger and terminal protection, aircraft parking space arrangement, logistical support required by the quarantine unit and dissemination of governmental orders, coordination of the distribution of pandemic prevention materials such as masks, arrangement of cleaning personnel to strengthen the disinfection of the terminals, setup of screening stations, planning of passenger routes, promotion of various concepts of pandemic prevention and hygiene education, and coordination of pandemic prevention vehicles, etc. Throughout the pandemic prevention period, we worked closely with all tenant companies to prevent the virus from entering the country.



Please refer to the official website of TIAC for more information about the pandemic prevention measures.



Basic operations

During the period of coronavirus disease, the Airport maintained normal operations, providing aircraft landing and take-off as well as passenger and cargo transportation services, and continued to promote various infrastructure projects to enhance operational safety and improve service quality.

Promotion of infrastructure projects

The Company continues to carry out the construction plan of Terminal 3 and the third runway and infrastructure. In order to strengthen and stabilize the power supply system of TTIA, the Company has launched an airport substation equipment replacement project and the south side common pipeline construction project to centralize the management of power lines and information and communication cables. The centralized management of cables, information and communication cables, and other facilities can facilitate the consolidation of the space for power lines required for the Airport's future power planning, which can be used for future maintenance and management as well as reserving space for future expansion of the Airport's power lines, reducing the risk of cable disruption caused by future road construction excavation and shortening the time for replacing old cables.

Enhancing operations safety

TTIA is a national critical infrastructure. In order to ensure flight safety and enhance the protection capability of critical infrastructure, we conduct a number of personnel training and workplace inspections every year to enhance the joint defense capability of all units, and to enrich the basic competencies and safety and disaster prevention concepts of employees and resident partners ([for more information on our flight safety education and training, please refer to Chapter 2.2 Aviation safety training and promotion](#)).

Improving service quality

During the pandemic, we continued to build and replace a number of facilities and equipment, including check-in counters and baggage handling equipment, air bridge replacement, upgrading of the terminal wireless network system to the latest WiFi-6 specifications, and the One ID trial ([please see Chapter 3.2 Diversified services for more information on our service quality](#)).





Pandemic prevention

As the frontline of pandemic prevention at TTIA, TIAC was responsible for integrating the frontline operating units at TTIA and coordinating limited resources to implement the government's pandemic prevention policies and actions immediately, effectively, and reliably, so that we can work together to keep the national gateway safe. The Company's pandemic prevention activities included:

Coordinate the special import of vaccines for the COVID-19 pandemic

Assist in the confirmation and rehearsal of related operations before the official importation, as well as the coordination of rapid clearance operations for each vaccine importation; the coordination units include the vaccine demand unit (CDC, Ministry of Health and Welfare), the public affairs department, and the aviation industry. Each batch of vaccines is imported in the fastest possible time - cleared within 65 minutes. In 2021, we assisted in the importation of 56 batches of vaccines, totaling 38.03 million doses of COVID-19 vaccine. (See Chapter 3.3 for details)([See Chapter 3.3 for details](#))



Technology pandemic prevention and digital publicity

The "COVID-19 Taiwan Taoyuan International Airport Response Center" e-group was established to provide immediate contact and update information to all units, as well as to introduce the escalator automatic sterilization machine, install 20 ultraviolet sterilization lamps in the air conditioning system, and install U+ sterilization cabin for passengers.

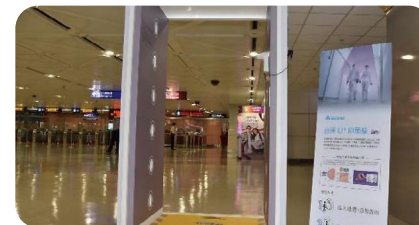
Implement environmental cleaning and disinfection operations



Raising the frequency of cleaning and disinfection to once every hour and conduct deep cleaning and disinfection at 16:30 daily. At the same time, we supervised the tenant companies to implement the regular environmental cleaning and disinfection operations.

Set up screening stations

All inbound passengers had to cooperate with PCR screening when making entry from the Airport. TIAC set up a dedicated lane and screening waiting area in the arrival hall, and assign personnel to guide and separate them. TIAC increased the number of screening stations to 44 in 2021 to facilitate screening operations.





Maintain social distance

In line with the Central Epidemic Command Center's recommendation to maintain a distance of 1.5-meter indoors and 1-meter outdoors, social distance stickers were placed in front of counters, entry quarantine, screening stations, security lines, and inspection lines to enhance pandemic prevention.



Special customs clearance coordination (human, vehicle, and material support)

In addition to providing relevant equipment, we coordinated with government agencies, aviation operators, and other related units to plan customs clearance procedures and assist in the implementation of special customs clearance coordination (human, vehicle, and material support).

For the 2020 Tokyo Olympics and Paralympic Games delegation, the Company cooperated with the planning of the entry route for independent athletes and the quarantine area, and assigned personnel to guide the athletes and maintain order at the site.



Access control measures

We strictly enforced access control measures and required all personnel to wear masks, implement the 1922 SMS contact tracking system, and set up infrared thermal imaging devices or temperature guns to measure body temperature to ensure the health of all personnel.

Pandemic prevention fleet services

We integrated and coordinated with taxi, rental car and tour bus operators to provide airport pandemic prevention fleet services in accordance with the national pandemic prevention policy. In addition to provide hygiene education and training for on-site personnel and drivers, and enhance vehicle and field cleaning and disinfection to ensure a safe and secure environment for passengers.



Immigration-related

Carry out pandemic prevention and disinfection in the inbound duty-free stores, promenades, toilets, baggage carousel areas, and arrival hall.





PCR screening for inbound passengers

All inbound passengers had to cooperate with PCR screening when making entry from the Airport. TIAC set up a dedicated lane and screening waiting area in the arrival hall, and assign personnel to guide and separate them.

Pandemic prevention acts of the airport immigration personnel

Require all airport personnel and tenant companies to implement pandemic prevention guidelines or protocols, and to coordinate and arrange vaccination services on an ongoing basis.

Strengthen duty-free store control and pandemic preventive measures

Supervise duty-free stores to comply with pandemic prevention policies and measures, and assist in guiding passengers to maintain social distances to reduce the risk of infection among passengers.

Cleaning and disinfection of terminals and safety management of cleaning and disinfection personnel

Require cleaning personnel to implement the measures to keep the pandemic out of sight.

Employees to work in separate areas and their pandemic prevention measures of the TIAC

Employees worked in separate areas and took turns coming to the office and were urged to take vaccination by registering all employees for vaccination.

Other related coordination and acts

The Airport implemented a surveillance program for high-risk workers, implemented pandemic preventive measures and audits, ensured sufficient supplies for pandemic prevention, and added a link to the "Immigration Quarantine System" on the Airport website's homepage.





Bailout

In view of the severe impact of the COVID-19 pandemic on the aviation-related industries, TTIA has implemented a relief program for the aviation-related industries in accordance with national policies. For 130 aviation operators and commercial service providers, relief subsidies were provided for landing fees, stopover fees, ramp usage fees, maintenance hangar usage fees, land rentals, house rentals, various royalties, and commercial service providers' personnel salaries, basic maintenance costs, and public service facilities, etc. The total amount of relief provided under the 1.0, 2.0, 3.0, and 4.0 programs was TWD 22.11 billion. In addition, TWD 1.65 billion was budgeted for the relief of transportation costs of the Airport's pandemic prevention fleet to help maintain operating efficiency and tide over the difficult times. In 2021, the use of relief funds reached TWD 7,669 million.



Description of the relief status



Usage of relief funds



Stimulus

Due to the impact of the COVID-19 pandemic and the Executive Yuan's policy of "strict control of border risks and relaxation of domestic activities", the aviation industry is facing serious financial losses. In order to actively strive for more cash flow during the pandemic, the aviation industry needs to "turn defense into offense" and proactively plan for various types of mock overseas trips or aviation experience activities to revitalize the airport economy and conduct a rolling review in line with the border pandemic prevention policy. [\(Please refer to Chapter 5.4, Give back to the society and contribution, for the Company's revitalization activities\)](#)

Renovation

The airport operations were busy prior to the COVID-19 outbreak, but the need to maintain normal operations and facility standards at the same time meant that maintenance of equipment could only be done in phases or over a longer period of time. The Airport took advantage of the time during the pandemic to carry out comprehensive repair and maintenance works and pulled forward the repair and maintenance plans planned for future years to meet the post-pandemic needs. [\(Please refer to Chapter 3.1 Service quality for our repair and maintenance\)](#)



Chapter 3

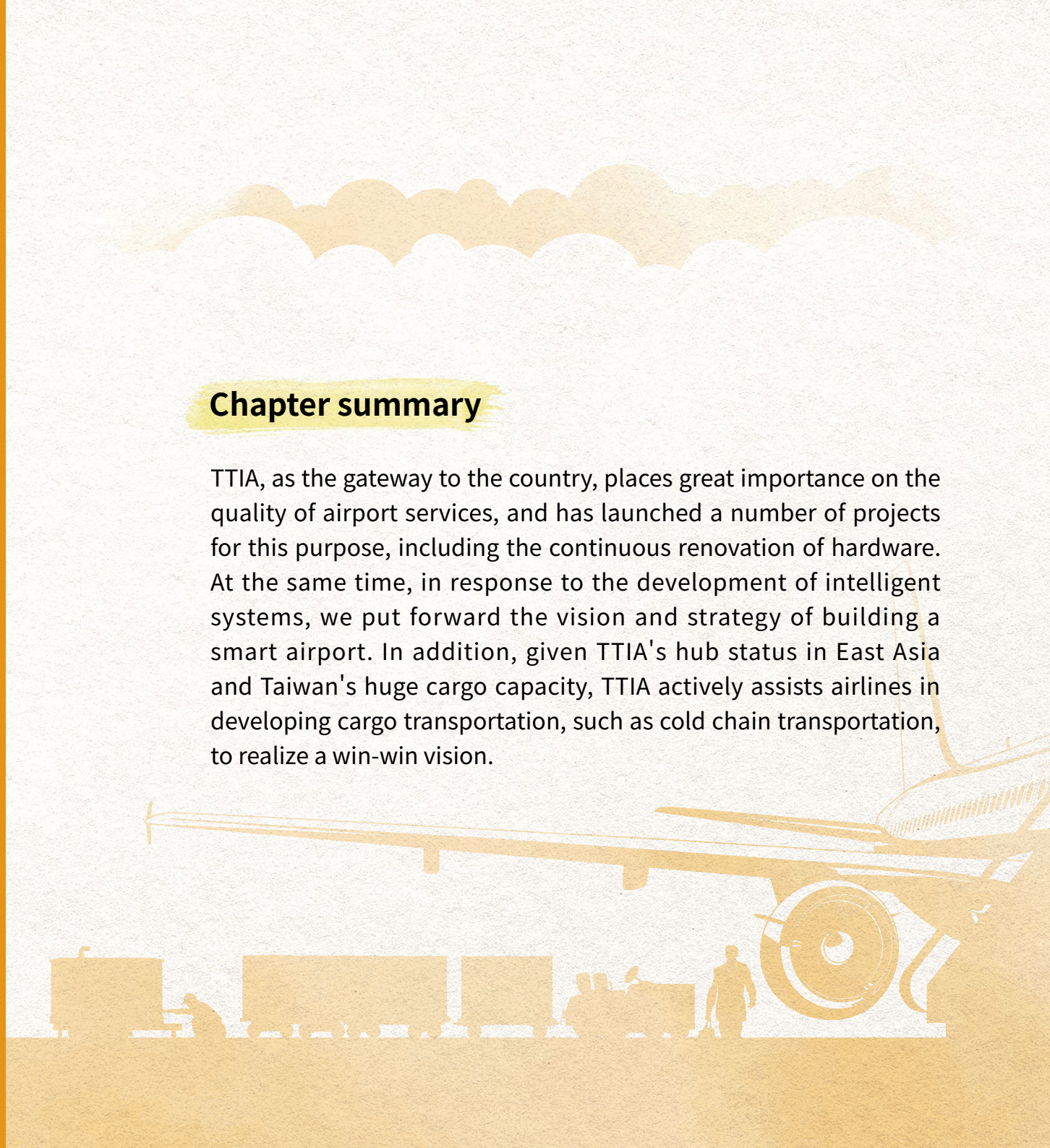
Active listening to create in-depth service

Key response to stakeholders

- Employees
- Passengers
- Aviation sector operators
- Collaborating partners
- Media

Chapter summary

TTIA, as the gateway to the country, places great importance on the quality of airport services, and has launched a number of projects for this purpose, including the continuous renovation of hardware. At the same time, in response to the development of intelligent systems, we put forward the vision and strategy of building a smart airport. In addition, given TTIA's hub status in East Asia and Taiwan's huge cargo capacity, TTIA actively assists airlines in developing cargo transportation, such as cold chain transportation, to realize a win-win vision.





Material topics management approach: Airport service quality, indirect economic impact



Policies and commitments

As the gateway to the country, TTIA has the mission to provide the highest quality services. By participating in the airport service quality satisfaction ratings organized by the ACI and promoting the smart airport and airport park programs, we are improving the operational efficiency and service levels of TTIA to promote employment and economic development in Taiwan.



Goals

Short-term goals

- Continue to implement the "airport service quality survey, passenger characteristics and service study, and service performance indicator project" annually, and make passenger feedback a priority improvement item to continuously improve passenger service experience.
- Through flexible ramp scheduling and optimization of airside and landside cargo routes, we will assist operators to increase cargo handling capacity and reach the annual cargo volume of 2.89 million tons.

Medium- and long-term goals

- Complete the long-term goal of the company's smart airport development strategy map.



Complaint mechanism

Please refer to: [Stakeholder communication and material topics of 2021](#)



Evaluation mechanism

- Hold quarterly meetings on passenger characteristics and KPIs to report survey results and discuss improvement plans.
- Review KPI standards for reasonableness and challenge.



Specific actions

- Elected service models from tenant companies. Finally, there were 26 service models.
- Implemented renovation projects, including the renovation of the South Runway, the replacement of baggage equipment at the check-in counters of the second terminal, and the relocation of the baggage sorting system control center.
- Introduced and built a number of intelligent and innovative pieces of software and hardware, including One ID facial recognition system, Airport Digital Information Integration Platform (ADIP), and Airport Collaborative Decision Making (A-CDM) system.
- Obtained national patent for FOS
- Promoted the development of air cargo industry, including coordinating with relevant authorities and operators to improve operational efficiency, assisting in the introduction of cold chain certification and facility construction to add value to the industry, new cargo parks and the second free trade port project.





3.1 Service quality

During the pandemic, TIAC still insisted on service quality to create a passenger-friendly smart airport. In order to ensure the service quality of the Airport and to review and improve it at any time, we have established 9 major passenger service performance indicators, and use the data to review the service performance to provide reference for the Airport to formulate action plans and to measure whether the management strategy has achieved the set goals, so as to improve the service quality of the Airport and to serve as a reference for Taiwan Taoyuan International Airport to formulate various improvement plans in the future.



Passenger service performance indicators



Sufficient amounts of large baggage carts



Waiting times at airline check-in counters



Waiting times at passport control for departures



Strength of WiFi signal



Toilet cleanliness



Waiting times at passport control for arrivals



Baggage arrival time



Waiting times for security checks

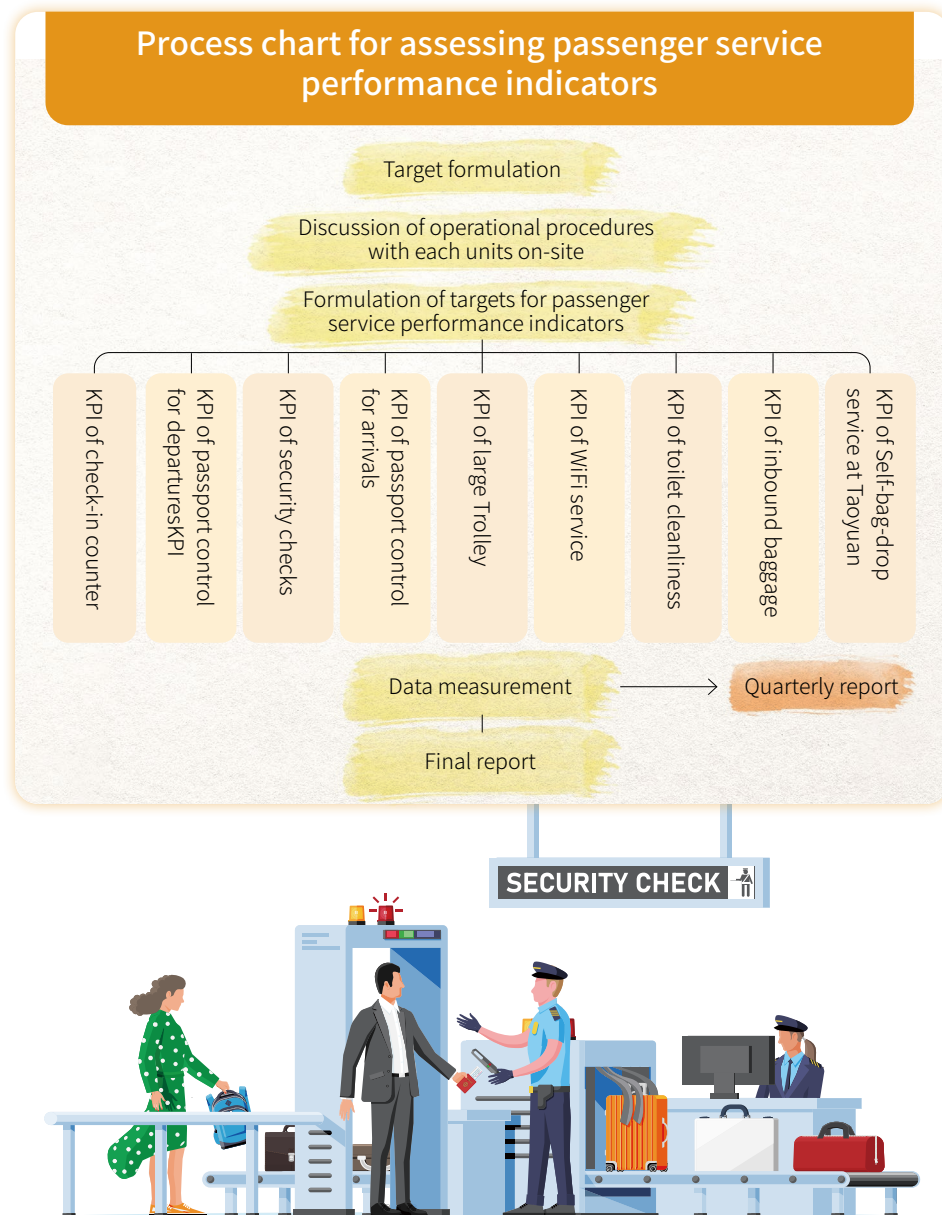


Bag drop waiting times at A1 Taipei Station on Taoyuan Metro System





Process chart for assessing passenger service performance indicators



Service models

In order to enhance the high-quality service attitude and competitiveness of TTIA, we elect "internal service models" and "Taiwan Taoyuan International Airport service models" every year to set an example for our employees. If someone has displayed remarkable performance in promoting airport services, solving major incidents in a timely manner, or other outstanding work performance with specific achievement, they can be recommended by each unit. We will publicly recognize these outstanding employees who have become exemplary and report them in feature stories, such as: the best disease control service, ground services, flight safety ambassador, lost and found expert, gentle airport wheelchair pusher, forensic expert who protects the national border, etc. In response to the severe pandemic, the 2021 service role model awards were conducted online, and the winners in each category was selected by the ranking method. A total of 26 winners were selected to receive the "service model awards".

Assist TIAC in arranging vaccination



LF.Property Management.





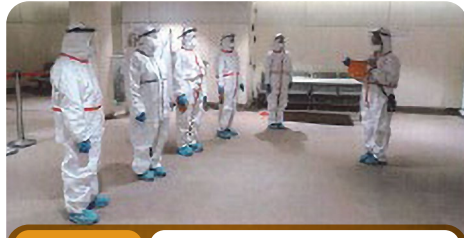
Sincere Group



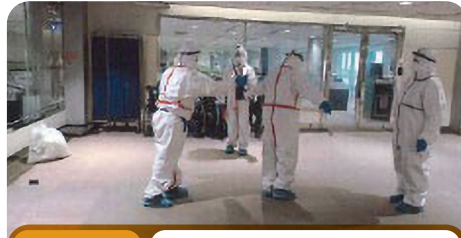
Place of work: Control 2F Arrival Hall
Name of work: Disinfection of office desks every 1 hour



Place of work: Control 2F Arrival Hall
Name of work: Disinfection of office desks every 1 hour



Place of work: Control 2F North Side Inner Waiting Room
Name of work: Employee education and training



Place of work: Control 2F North Side Inner Waiting Room
Name of work: Employee education and training

Taiwan Landseed Hospital



High risk case medical out-calls



Assist CDC with suspected cases



In-flight intravenous drip and transfer of suspected COVID-19 cases



Screening of specific high-risk workers



Check out more stories about service models



Diversified services

SERVICES DIVERSIFIED

Mobile libraries

There are a total of three libraries and reading rooms in Terminal 1 and 2, containing more than 2,000 eco-friendly books, 400 Chinese and English e-books, audio-visual children's books, as well as comfortable sofas that make it convenient for passengers from all over the world to relax and read. TTIA also has two e-library observatories that make it possible to view planes while reading e-magazines.

Food courts and shops

In order to strengthen service quality, TIAC provides passengers and airport personnel with abundant and varied dining options, actively introducing cuisine from all countries as well as local delicacies. The food court in the basement of Terminal 2 reopened on May 2019, providing Taiwanese, Japanese, Korean, and Western foods within brand-new facilities and spaces, bringing better airport dining experiences to passengers. The food court has served around 3.16 million passengers in 2019 since its reopening. TTIA's shopping center on the fifth floor contains a food court with a decor reminiscent of Dadaocheng Temple Street, a scenic restaurant with breathtaking views, and Michelin restaurants; Passengers can watch takeoffs and landings while enjoying a variety of gourmet dishes.

Set up the third generation of e-Gate

To speed up passenger clearance, TIAC donated 14 third-generation e-Gate Enrollment Systems to the Immigration Department for our people and foreigners to use. After facial recognition, the clearance time can be reduced to 5-7 seconds, greatly improving the efficiency of the rush hour.





Transit movie theater

The movie theater has installed in the transit area of Terminal 1 is a heartwarming service that frequently amazes passengers. The movie theater not only contains recliners and massage chairs, but also plays movies from time to time to keep passengers from being bored even during long wait times.

VIP lounges and shower cubicles

In 2016, TTIA was ranked first place in Skytrax's World's Best Independent Airport Lounges, overturning the stereotype that lounges should only be used by business travelers. Both Terminal 1 and 2 have free 24-hour Plaza Premium Lounges with shower cubicles, resting areas, lactation rooms, changing rooms, and prayer rooms that can be used by all passengers and meet the needs of different groups who need to rest at the airport.

Themed boarding gates

TIAC has collaborated with duty-free shops to create themed boarding gates with distinctive styles, thus showcasing Taiwanese culture at the 38 boarding gates and 34 waiting areas in Terminal 1 and 2. Themes encompasses local Taiwanese customs, art and culture, natural environments, and special exhibitions.

Free Charging Service

There are more than 500 free charging stations in TTIA. Some charging stations even come with sofas or USB sockets which provide more comfortable service. Terminal 2 also has lockable charging stations that allow passengers carrying luggage to safely charge their phones.



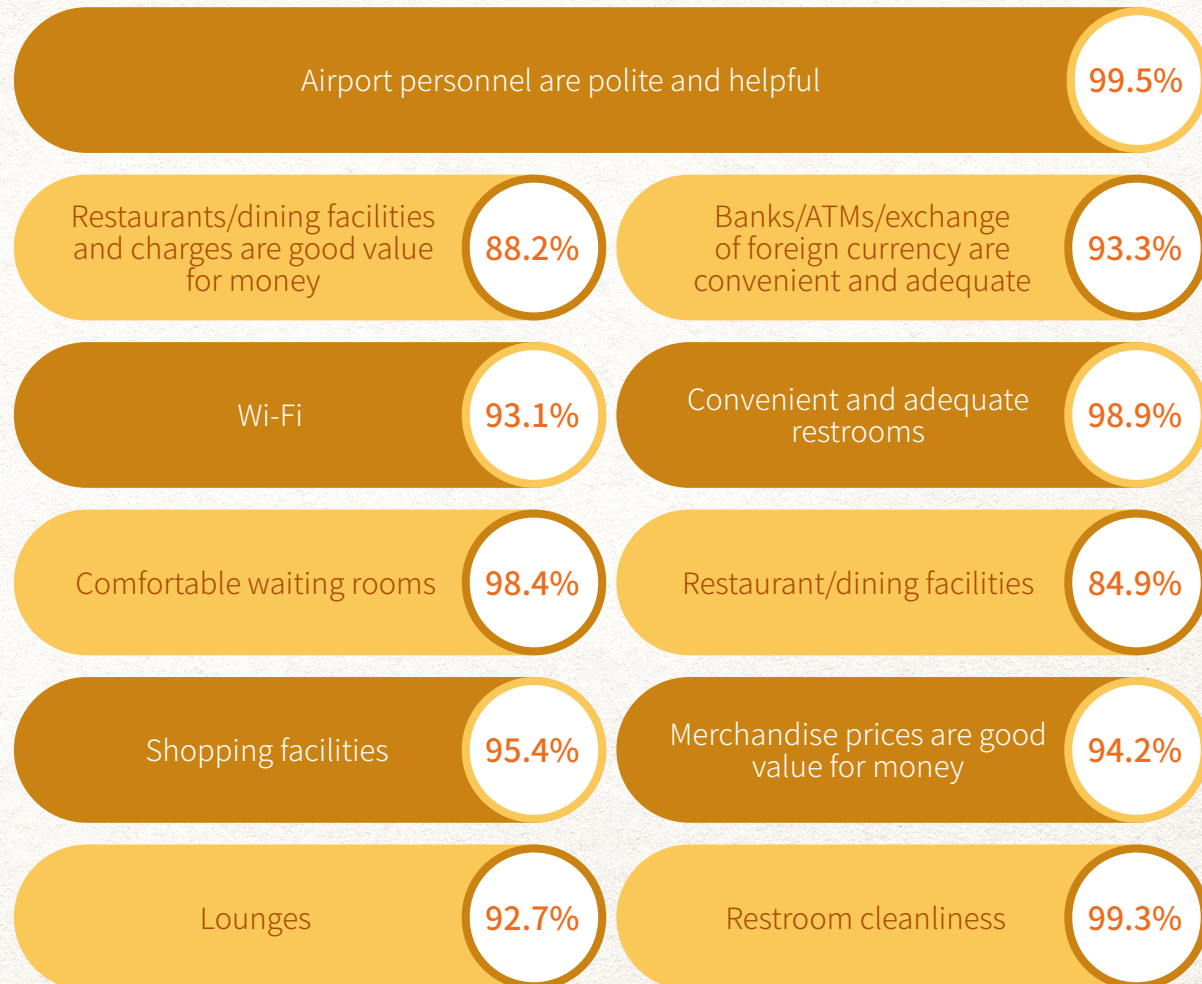


Satisfaction survey

In order to have a more comprehensive understanding of the outbound passengers' perception of the Airport and their flight, Taoyuan International Airport Corporation Ltd. conducted a satisfaction survey through the "Taiwan Taoyuan International Airport passenger characteristics and services study" with 6,215 outbound passengers aged 16 and above interviewed. From the satisfaction survey, we found that except for the restaurant/dining-related issues, which scored 80% satisfaction or higher, all other items achieved 90% satisfaction, and many items were close to 100%, such as courteous and helpful airport personnel, convenient and adequate bank/ATM/exchange of foreign currency, and clean restrooms.

We will use the satisfaction survey results as a reference for future service quality improvement to provide the best service experience and quality to passengers from all over the world.

2021 satisfaction survey details





Passenger feedback

We will respond to all stakeholders' feedback and opinions honestly, openly, immediately and positively, and we will reply within the shortest possible time. In 2021, there were 1,194 passenger feedback communications, mainly from passenger

mailboxes (723), followed by official communications from government agencies (276), and by category, inquiries (864) and suggestions (198). We are open to all feedback and all comments have been properly handled and responded to.



Service upgrade South Runway asphalt patching works

TTIA leveraged the pandemic to actively promote a number of airside and landside renovation projects. This time, the South Runway was repaired in response to the heavy pressure and rotation of aircraft, and was carried out with a rigid and flexible approach. The project was fully completed on September 15, 2021. The airside taxiway system at TTIA is expected to be completed in 2022, except for the North and South Runways, which have been completed already. The system will improve the efficiency of aviation control operations and aircraft operating space, and significantly enhance flight safety.

In this renovation project, the construction team adopted a rigid and flexible approach to cope with the heavy pressure and rotation of the aircraft, and also excavated 2 meters deep for soil replacement in some areas with soft substrates. After the runway resumed for take-off and landing, the air traffic control tower asked the

flight captain about the runway and the road surface condition was reported to be normal and good. We never compromise on flight safety. Moving forward, we will check any possible hazards on the runway and airside promptly and take precautionary measures at the same time.

Combining runway safety and sports safety imagery, we communicate through three athletes' perspectives that "only in good sports venues can athletes have high-level performance, and only with good airport runways can aircrafts take off and land with high safety," and produce a runway image video to explain to the public TTIA's efforts to improve flight safety. The media benefit is that it reached more than 1 million people.



Airport runway introduction video



Taiwan Taoyuan International Airport Safe flight

Optimize baggage handling

In order to improve baggage handling efficiency, the baggage handling system optimization project in Terminals 1 and 2 has been initiated since 2015. After completing the Phase I of the "new construction of the departure baggage conveyor system in Terminal 1" in 2019, the Phase II of the "replacement of baggage equipment at check-in counters and relocation of the baggage sorting system control center in the second terminal" was completed at the end of 2021 and recently released for operations, completing the last piece of the project. After optimization, the number of baggage pieces handled per hour at the check-in counter island in the second terminal has increased from 480 in the past to 600, which is 25% higher than before, effectively improving the quality of service. We also lowered the weighing scale conveyors and reserved moving lines for entering and leaving the counter, improving the operating environment for aviation police, airline ground services, and equipment maintenance personnel, and preparing for the recovery of the aviation industry in the post-pandemic era.

In addition, the relocated baggage sorting system control center is equipped with a new centralized monitoring and surveillance system. The new large-screen display system can synchronize the baggage conveyance status and graphic control system in each area, making it easier for personnel to know and troubleshoot the situation immediately when there is an emergency, which enhances stability, management efficiency and information security.

TIAC not only actively carries out equipment renewal, but also implements a planned maintenance mechanism, with the abnormal condition elimination simulation drills from time to time to ensure that personnel have the ability to handle emergency situations, making baggage transportation more efficient and secure.



Comprehensive upgrade of network specification-Wi-Fi 6

TIAC has completed the replacement of airport wireless network equipment and upgraded it to the latest WiFi-6 specifications in response to the trend of technological development and the demand of passengers for Internet access from mobile devices. More than 550 base stations have been deployed, and the system covers the airport terminals, boarding gates, parking lots and other public areas. After completion, the increased network capacity enables the transmission rate of a single device supporting WiFi-6 to reach up to 1.2Gbps, which not only makes the control of devices more convenient, but also allows passengers to use airport app services more smoothly, and can satisfy passengers' demand for Internet access, creating a better experience of connecting to the Internet and terminal services.

In response to the need for pandemic prevention at the border for COVID-19, TIAC has successfully implemented technological pandemic prevention relying heavily on a high-quality wireless network environment. Through WiFi-6 support, the efficiency of the passenger arrival quarantine and declaration process has been greatly improved. Moving forward, under the WiFi-6 environment, passengers can proceed smoothly through apps and smart devices for both departure and arrival, avoiding unnecessary contact with airport personnel in the check-in, security, and customs clearance processes, enhancing service quality and efficiency, and improving passenger satisfaction.



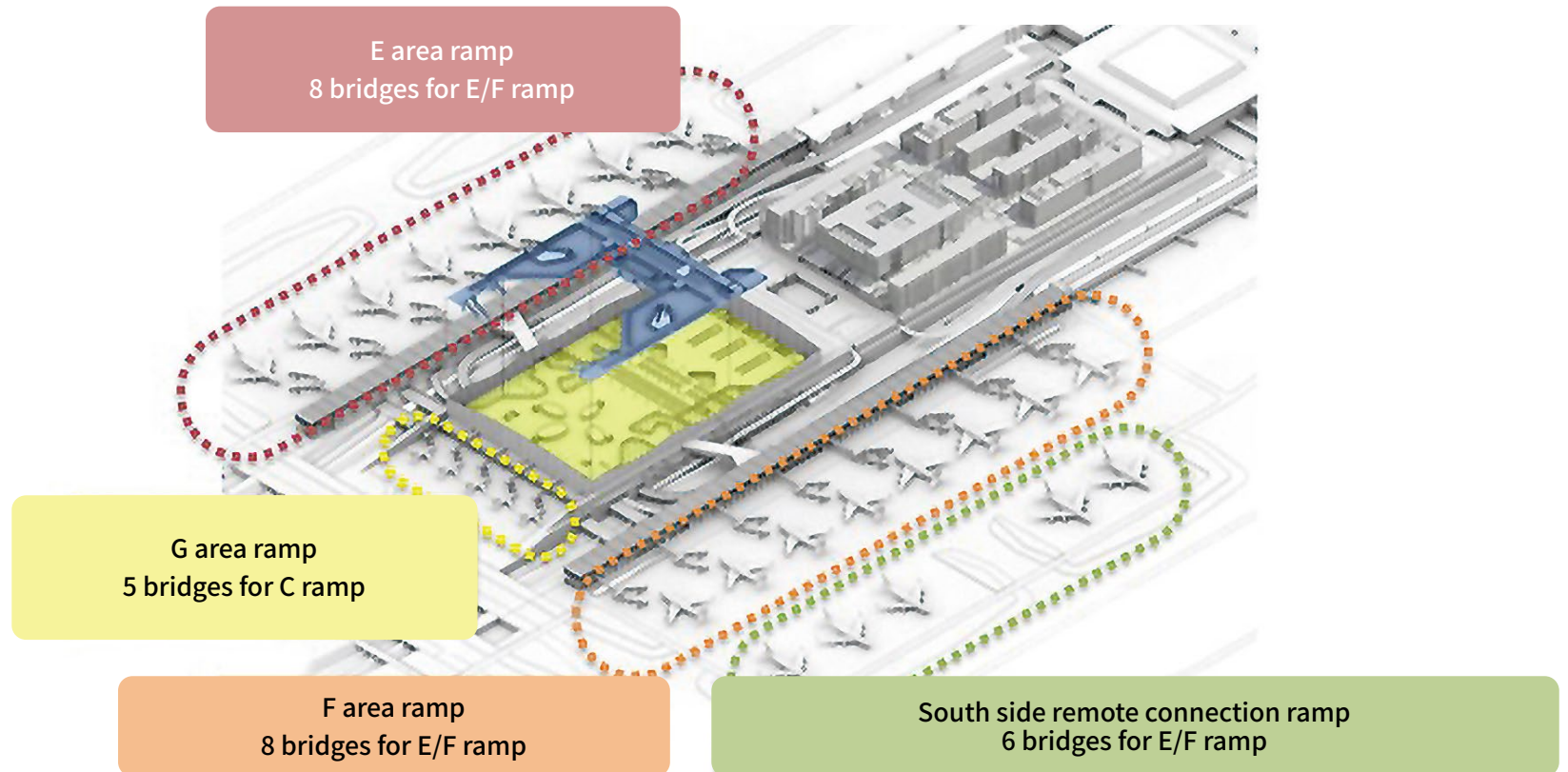


Planning and current progress of Terminal 3

In accordance with the results of the "Taiwan Taoyuan International Airport Park Outline Plan", TIAC has prepared the implementation plan". The short-term goal is to improve the level of airport services and develop Terminal 3 construction plan to create a world-class passenger terminal with a macro and forward-looking perspective, and to create a better airport service and passenger experience.

The construction of Terminal 3 is planned for the period from 2015 to December 2026, and will be completed in three phases: the Phase I will be completed in 2024 for

the North Boarding Hall, and the Phases II and III will be completed in 2025 and 2026 for the main terminal and south boarding hall respectively. Terminal 3 is planned to serve 45 million passengers per year on the landside and 20 million passengers per year on the airside (excluding the satellite concourse), providing 21 standby parking spaces and 6 remote parking spaces, and reserving the infrastructure to connect to the satellite concourse to meet the needs of future travel growth.





In the design of Terminal 3, we also took into account climate change, including extensively improving the terminal area's flood control and drainage capacity. In order to avoid increasing the burden of Puxin Creek, the main drainage line in the area, due to the increase in the impervious pavement area of the terminal, the capacity of the flood detention pond and drainage system in the terminal is increased, and the overall flood protection strategy of the terminal is considered. As building the terminal will entail an increased area of impervious pavement around, the main drainage line in the area and Puxin Creek will be burdened more. Therefore, the capacity of the flood retention ponds and drainage system around the terminal will be increased as part of the overall flood protection strategy of the terminal. In addition, Terminal 3 is also designed in the direction of pursuing a green airport. The design of the terminal space is based on the IATA Class A service level (50 square meters of space per passenger during peak hours), and we plan to also obtain the domestic green building gold label and the U.S. Green Building Council's LEED gold quality label.

- 1 Provide at least 48 recharging parking spaces in the visitor parking lot, while at least 10% of our own operating vehicles will be electric vehicles.
- 2 **Rainwater recycling system:** Rainwater treatment facilities will be provided in Terminal 3. Rainwater will be collected from some of the roofs of the terminal and concourses and used for watering and cleaning; any surplus will be used for flushing the toilets.
- 3 **Wastewater recycling:** 15% of the drainage water is reused directly (for watering, cleaning, etc.) and 30% is reused after advanced treatment (water for air conditioning), with a recycling rate of 45%.
- 4 **Use water-saving appliances:** Use recommended low-flow water-saving appliances to reduce tap water usage, such as water-saving toilet/kitchen faucets, showerheads, two-stage toilets, and urinals.

- 5 **Curtain design:** Roof overhangs with different depths are used in different directions for shading. The double-layer Low-E glass curtain is used to provide both lighting and heat insulation. The deep eave design extends the curtain around the roof by 10 to 50 meters, which reduces the amount of sunlight entering the building and reduces the energy consumption from air conditioning to save energy.
- 6 **Planting design:** Optimization of the entry and exit routes and growing green plants to enhance the experience of the airport: This project improves the overall airport entry routes from the national highway by constructing green walls on both sides of the routes to symbolize the culture of Taiwan's tea plantations and terraced rice fields, which not only bring a fresh impression to the national gate, but also serve for greening, air purification and act as noise barriers.
- 7 **Renewable energy setup:** The solar photovoltaic (PV) power generation system is estimated to generate an average of 679,795 kWh of electricity per year, which can reduce 358,932 kg of carbon emissions per year (equivalent to 0.923 Daan Forest Park's annual CO₂ absorption).



Simulation of curtain design



Simulation of green wall design

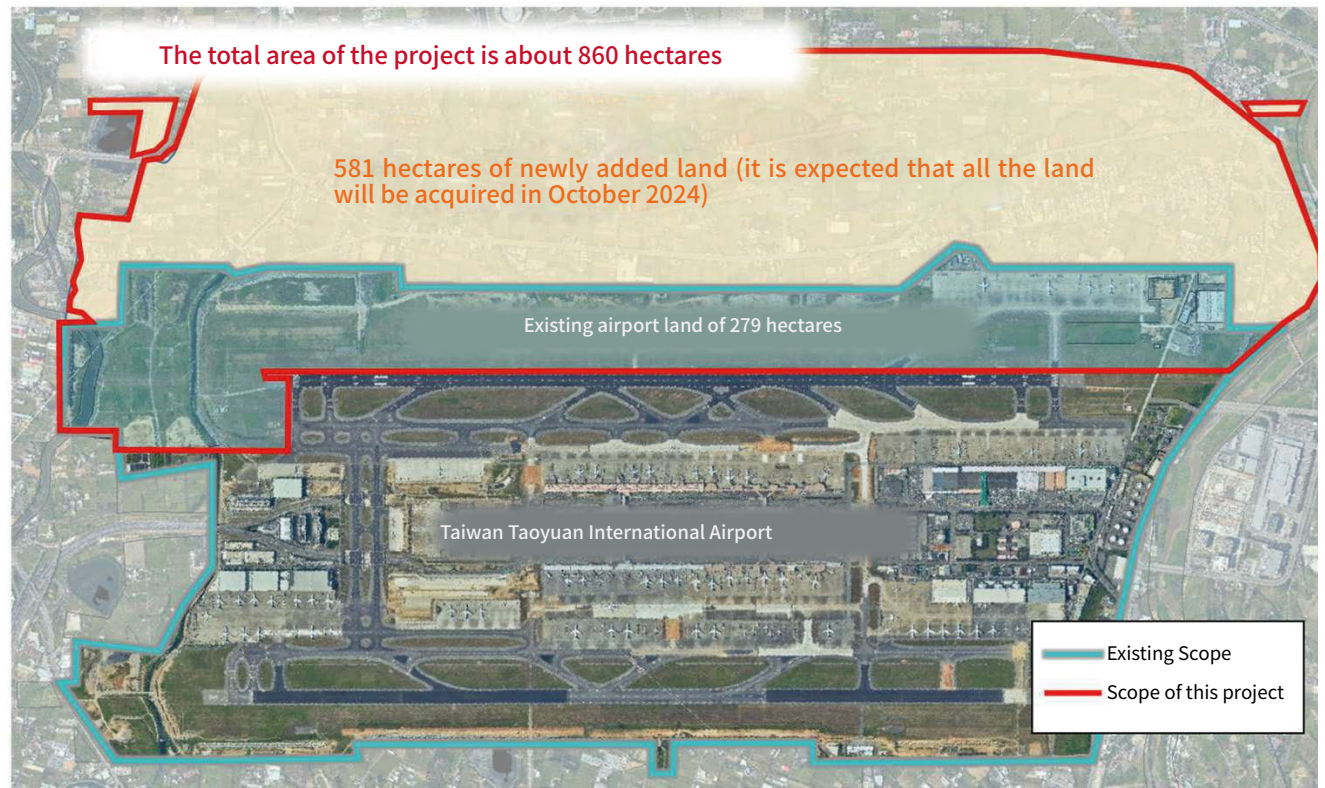




Planning and current progress of the third runway

According to the short, medium and long-term major construction projects of the airport park, the third runway will be constructed. The purpose of this project is to increase the capacity of the existing dual runways from 50 to 80 to 90 flights per hour, in order to cope with the future long-term development of the Airport. This will not only facilitate the development of passenger and cargo facilities at the Airport, but will also allow the Airport to maintain operations during the annual maintenance of the North and South Runways with the third runway as a backup after its completion.

The third runway is planned to cover an area of 860 hectares (581 hectares of land for expansion and 279 hectares of existing land), which is similar in scale to a new international airport. In addition to the runway, taxiway, navigation aids and other facilities necessary for aircraft operations, the expansion area's infrastructure such as power supply, water supply, drainage, flood control, firefighting, and life support must also be completed for the future development of the concourse area, maintenance area, and cargo area.



Please refer to [Chapter 4.2 for the third runway disaster response measures in regards to climate change.](#)





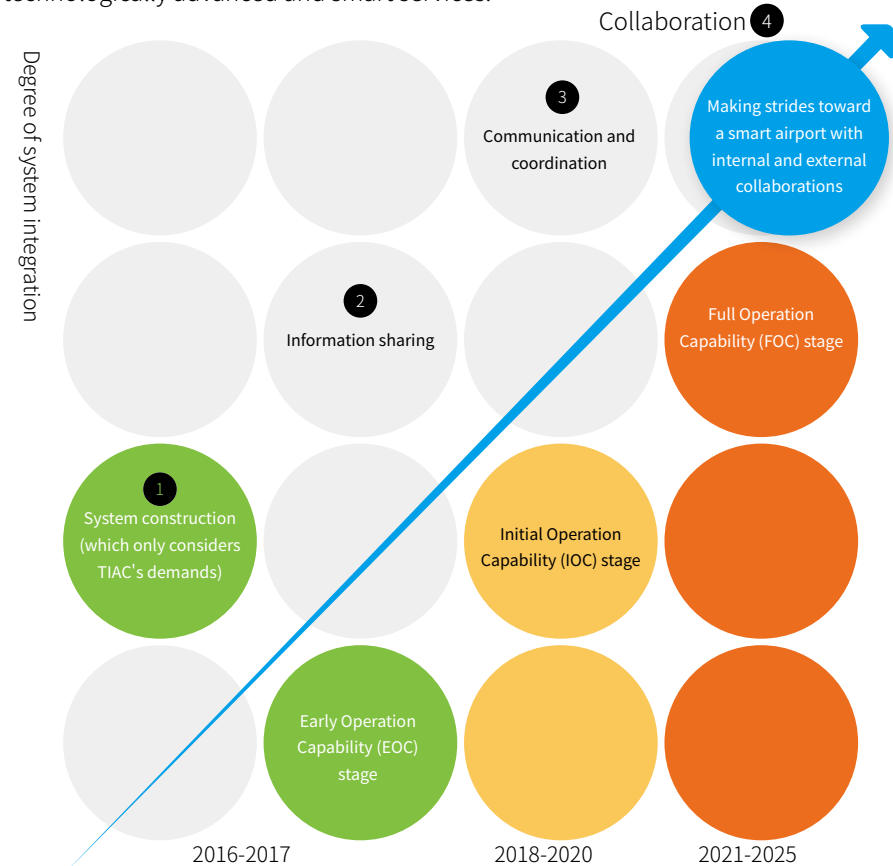
3.2 Smart innovation

Following the global trend of technological intelligence, the Company is moving toward digital transformation to create a smart airport management concept, improve operational efficiency and passenger satisfaction, and strengthen international competitiveness. We hold regular Smart Airport Promotion Committee meetings for domestic and international exchanges of smart technology to promote the development of transportation technology industry, encourage innovative business models, and enhance the nationalization of the industry.



Smart airport vision and strategy

Since the introduction of BEACON positioning technology in 2015, TTIA has been implementing various smart measures and has formulated a ten-year construction plan, hoping that through the upgrading of hardware and optimization of software systems, all domestic and foreign passengers visiting TTIA can enjoy the most technologically advanced and smart services.





- 1 Short-term
- 2 Medium-term
- 3 Long-term

This stage is mainly building information and communication infrastructures, main applications, and integrated database. This stage is termed the Early Operation Capability (EOC) stage and is focused on enhancing "information sharing" capabilities.

Integration of various applications and functions needed for information and communication services to realize online service functions that can be utilized with one click while establishing integrated databases to facilitate information sharing. This stage is termed the Initial Operation Capability (IOC) stage and focused on ensuring communication and coordination capabilities, and integration of different services provided by specific information systems.

Integration of information and communications services in different fields relating to smart airport to realize an online one-stop-shop and operational procedures as well as continued expansion, improvement, and integration of smart airport applications and functions. This stage is termed the Full Operation Capability (FOC) stage and focuses on ensuring collaboration capabilities, including communication and collaboration between different categories of information systems and their operating systems.

According to TIAC's '2021 plan, the work completed includes: Analyzing the current status and development trend of emerging technology applications in the lifestyle industry, by taking stock of the current status of the introduction of smart technology applications in the lifestyle industry, analyzing the development trends of applications that are relevant to technology, and taking stock of what smart applications that can be used in airports. The preliminary results of the stock taking show that three emerging technology applications, namely 5G/WiFi 6, Internet of Things, and AI, are among the applications with high priority to be introduced.

Based on the results of internal analysis, we have planned the infrastructure plan for smart operational facilities: from the six components of passenger service, resource management, baggage and cargo, security management, environment and hygiene, and integration, and taken stock of over 100 operational facilities.

The six components of the blueprint and the promotion strategy





Smart airport application Introduce One ID

Biometric identification identifies the user by each individual's unique biometric features, thus providing more security and uniqueness in identification. The identification of passengers moving between borders is very important in the airport during the clearance process. As a result, foreign airports are beginning to use biometric identification in the customs clearance process. In order to provide a safer and more efficient customs clearance service, TTIA has conducted a trial run of One ID (face recognition system) with the consensus of relevant authorities.

After the internal stress test, the "One ID face recognition system" was tested on two flights per day from December 1 to 14, 2021, during which more than 700 passengers used the system and the utilization rate was 56%. The overall results were good. During this period, we also made adjustments to our equipment and moving lines based on feedback from passengers and airlines, and strengthened promotion

and training of customer service personnel to ensure smooth operation of the trial run.

During the trial period of "One ID", participation was voluntary for passengers to decide whether to integrate their passport, boarding pass and facial features to create their own data for entering the security checking line and boarding gate. The data transmission is carried out using a closed VPN network and is automatically deleted after the flight takes off, ensuring that personal information is not leaked and that passengers can use the network without worry. Passengers who wish to try One ID can create their information at the check-in counters (No. 9 and No. 18), self-service check-in machines (near check-in counters No. 10 and No. 17) and security gates, and enter the control area at the trial C6 and D5 boarding gates, where they can scan their facial features with One ID for smooth boarding and fast passage.



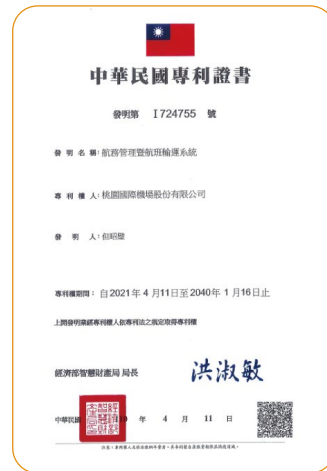
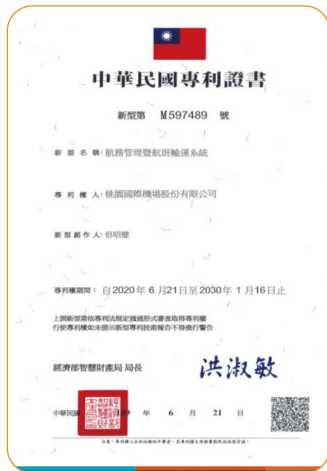
Taiwan Taoyuan International Airport x Smart Face Recognition Technology Transformation



Flight Operation System, FOS

FOS is the forefront of airside safety and management at the Airport, from ramp management, aircraft take-off and landing, seat planning, and even emergency rescue, all of which are important responsibilities of FOS. FOS is one of the most important information systems of TIAC. It is a comprehensive information system for the business under the jurisdiction of the Company' Aviation Operations Division, including landing, take-off, arrival, departure, baggage carousel, commercial services, and personnel scheduling of public authorities.

The system was developed and implemented by TTIA, and patents for it were approved by the Intellectual Property Office, Ministry of Economic Affairs in June 2020 and April 2021 patent (New Model No. M597489 and Invention No. I724755), respectively. It is the first system that we independently developed and was awarded national patents, providing the most real-time information and more convenient tools for airside management, setting a precedent for intelligent airside management in national civil airports. The patent granted to FOS will facilitate the export of the technology to other airports and international exchange and cooperation in the future.



Patent Certificate

Three major benefits

01 Improve airside management efficiency

Before the pandemic, TTIA had an average of over 700 flights per day, and the number of flights during the New Year peak or after typhoons was nearly 850. With the increase in flights, flight operations personnel have to improve the turnaround rate to maintain normal aircraft arrival and departure operations. Through FOS, personnel can make pre-scheduling the day before, and in case of irregularities or special flights, such as some inbound flights requiring landing screening, adjustments can be made quickly through the graphical interface. Various parameters such as flight numbers, aircraft types, noise levels, maximum take-off weight, and actual arrival and departure times of the aircraft can be calculated automatically to make charges through the system to facilitate subsequent operations of the finance personnel.

02 Self-developed with core technology

FOS is designed according to the actual needs of personnel and integrated with the existing field management mechanism, which can meet the needs of daily operations better than externally purchased systems. TIAC takes the driver seat to develop its own core technology, so that it can quickly expand or modify the system functions in the future, effectively saving development time and costs, and shall not be held hostage by system vendors.

03 Real-time information transfer and sharing

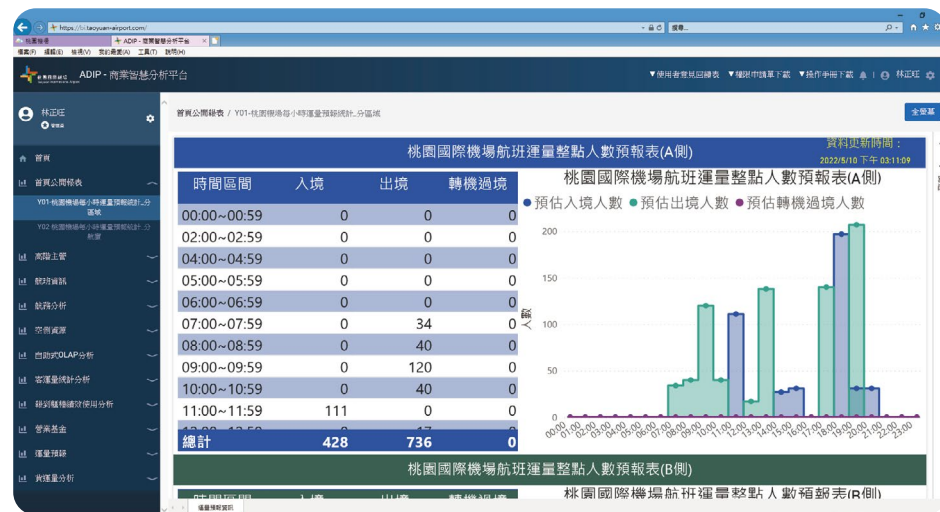
Based on the same principle as A-CDM (Airport -Collaborative Decision Making), the system enables airport stakeholders such as the Civil Aeronautics Administration's Air Navigation and Weather Service, airlines, ground services companies, public sector units, and business partners to have the ability to use information under specific authority, so as to obtain real-time information to facilitate real-time deployment of manpower and equipment to achieve optimal resource allocation.



Airport Digital Information Platform, ADIP

To support users at all levels to quickly and intuitively obtain accurate and important data, optimize business execution efficiency and support decision making reference, and implement cross-system and network data sharing and monitoring management, on this basis, to more easily interface with the future information and communication system of Terminal 3, we plan to integrate the existing system business information and network resources of Terminals 1 and 2 to establish a standard data exchange and analysis platform, including the production of flight operations, flight information, flight service revenue, traffic forecasts, airside resources, passenger traffic statistics and other related intelligent analysis reports.

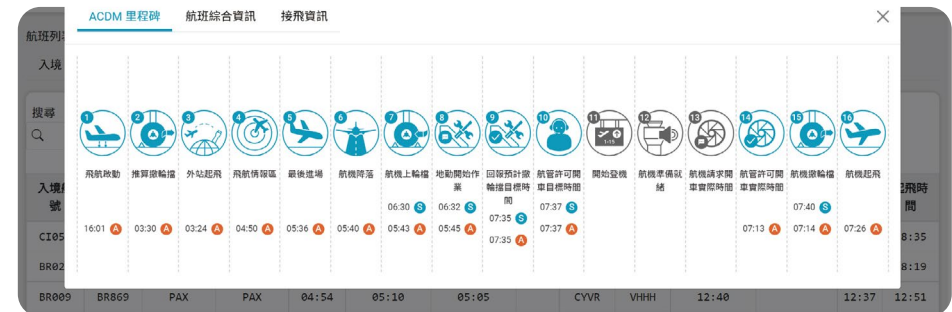
In 2021, we completed the data integration of 5 internal information systems, and plan to expand the data integration to 19 internal and external systems in 2022, and introduce big data analysis in 2023, and finally complete the integration of the remaining internal and external systems.



Airport-Collaborative Decision Making, A-CDM

A-CDM system subdivides flights from arrival to departure into 16 milestones, including take-off time at other airports, landing, block-on, ground services, block-off, take-off, etc., reflecting the progress of flight operations at each stage. The principle of A-CDM is to provide a real-time and transparent data exchange platform that allows TIAC, airlines, ground services companies, and air traffic control units to keep track of flights from arrival to departure, and transform the data into useful information for efficient and correct decision making. A-CDM provides consistent timing information for ground operations, which allows air traffic control units to accurately schedule flights, optimize air traffic control operations, improve ramp turnover, and reduce operating costs, among other benefits. In addition, the system can also be extended to coordinate and integrate across airports, allowing neighboring airports to respond to unforeseen situations and contributing to the improvement of global or regional air transportation capacity.

The division of work for airport operations is precise and elaborate. Take TIAC as an example with over 320 government and corporate resident units at the Airport, it is a challenge to link up the database with each of them in their own way. The deployment of A-CDM system allows for the full flow of information, and the operators of each unit can query and share information through the User Interface (UI). As we build a smart airport, the acquisition, exchange, and analysis of information on personnel, cargo, equipment, and the environment are of paramount importance, and the A-CDM system will play an important role in the future airport environment.

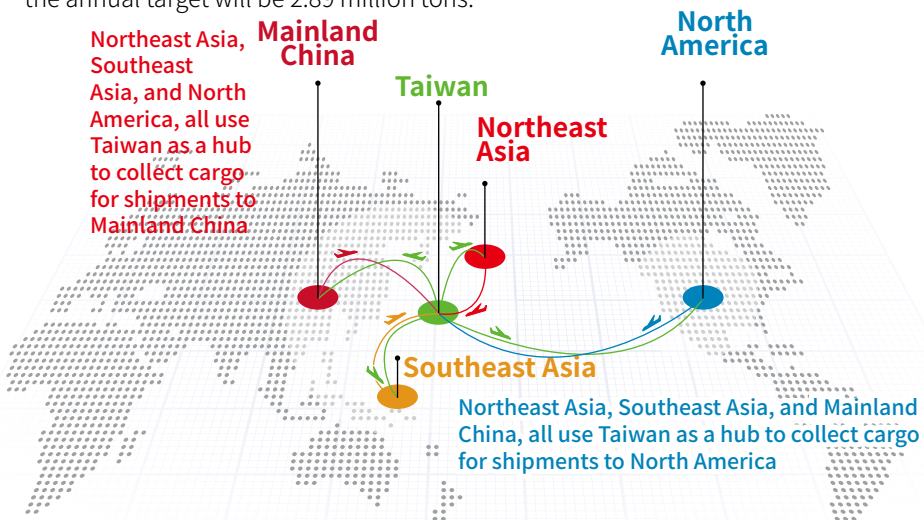




3.3 Air cargo development

Taiwan is located at the center of the three economic circles of Northeast Asia, Mainland China, and Southeast Asia, and has close trade and commercial ties with the North American economic circle. The cargo capacity of our domestic airlines is huge, with numerous daily flights to North America and Mainland China's high-consumption markets. Whether for shipments on all-cargo aircraft or in the belly of passenger aircraft, TIAC has the advantage of being a hub for short- and medium-haul transit in East Asia and long-haul transit to North America. TIAC aims to increase re-export cargo volume and enhance re-export value-added efficiency in order to drive Taiwan's economic and industrial development in conjunction with the national resources to attract investments and build hardware to seize business opportunities. In addition to generating airport cargo volume, it also creates industry revenue through overall industry upgrade, resulting in a win-win situation.

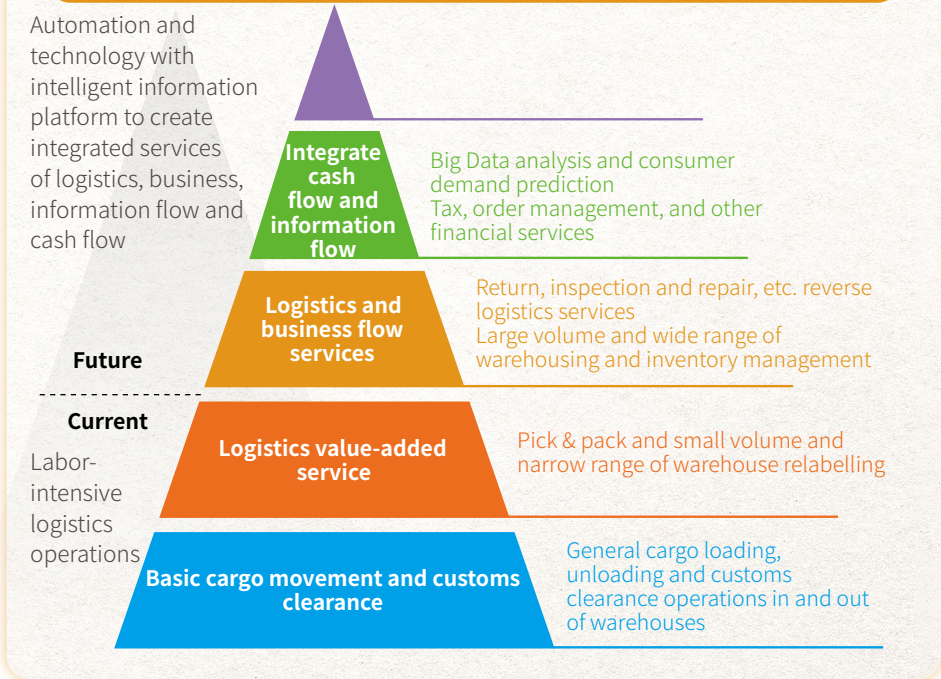
According to ACI, TTIA was among the top four airports in the world in terms of international cargo throughput in 2021, handling a record high of 2.81 million tons, with an annual increase of 20% and positive growth for two consecutive years. Looking ahead to this year, as the world is still mired in sea freight congestion and lack of containers and supply chain disorder, TIAC will continue to assist the industry to improve cargo handling capacity through ramp flexibility and optimization of airside and landside cargo routes, etc. It is expected that growth momentum will continue and the annual target will be 2.89 million tons.



Development vision and goals

Promote and attract diversified industries to operate in the Airport, including logistics, aviation services, international business, aviation maintenance and others related to the airport economy.	Accelerate trade liberalization and internationalization through the free trade ports, and use the smart logistics model to tie up domestic and foreign industrial supply chains and facilitate industrial upgrading.	Strengthen the business environment and service facilities for the industry, and build a hub of the Asia Pacific region for cargo transportation, aviation services and international business center.	Provide air cargo development hinterland and construction space, strengthen the competitiveness of international logistics, ensure the development opportunities of related industries, and solidify the status of TTIA as the hub of the Asia Pacific region.
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Goal: Create value-added and drive industrial development





In order to achieve the cargo development vision of TTIA and enhance the overall cargo competitiveness, the main measures are divided into three major categories:

1 Coordinate with relevant authorities and operators to enhance operational efficiency

Landside truck route coordination

Since 2021, due to the high cargo volume, truck traffic tends to affect the traffic order of Hangqin N. Rd around the holidays, so we coordinate with the distribution terminal and logistics operators to invest resources to optimize cargo handling operations, and cooperate with the Aviation Police Bureau during peak periods of import and export to ease the order of vehicles entering and leaving the cargo area, so as to maintain the smooth operations of overall air cargo transportation.

Airside borrow or lease coordination

We coordinate with airlines, ground services operators and air cargo terminal operators to borrow or lease airside space to ensure that cargo and ground equipment are placed within the ranges of ramp aircraft and vehicle routes, which not only improves operational efficiency, but also avoids endangering the safety of aircraft and ground services personnel. If the number of passenger and cargo flights continues to grow in the future, the Airport will flexibly deploy airside resources to respond.

2 Assist in introducing cold chain certification and facility construction to add value to the industry

To strengthen TTIA's competitiveness in the air cargo market, we took the initiative to organize the TPE Cargo Community in 2017 and became the 15th cold chain certification working group in the world. Our role is to represent the group in the coordination of the cold chain training and certification services contract details with IATA. We were able to reduce the cost of certification by 69% and secure 3 additional training places for CIQS.

After China Airlines obtained the international certification in 2019, we also assisted EVA Air and Evergreen Airline Services to obtain the certification in 2021, and hope to attract more industry peers to join in the future, such as the air cargo handling industry. In addition, TTIA is also actively assisting in the construction of cold chain related facilities in the air cargo distribution terminals. For example, the construction of a cold chain warehouse in the Farglory free trade port is expected to be completed in the second quarter of 2023. Moving forward, TTIA expects to establish a complete cold chain logistics supply chain, drive the development of temperature control related industries, enhance temperature control logistics services, and create business opportunities.

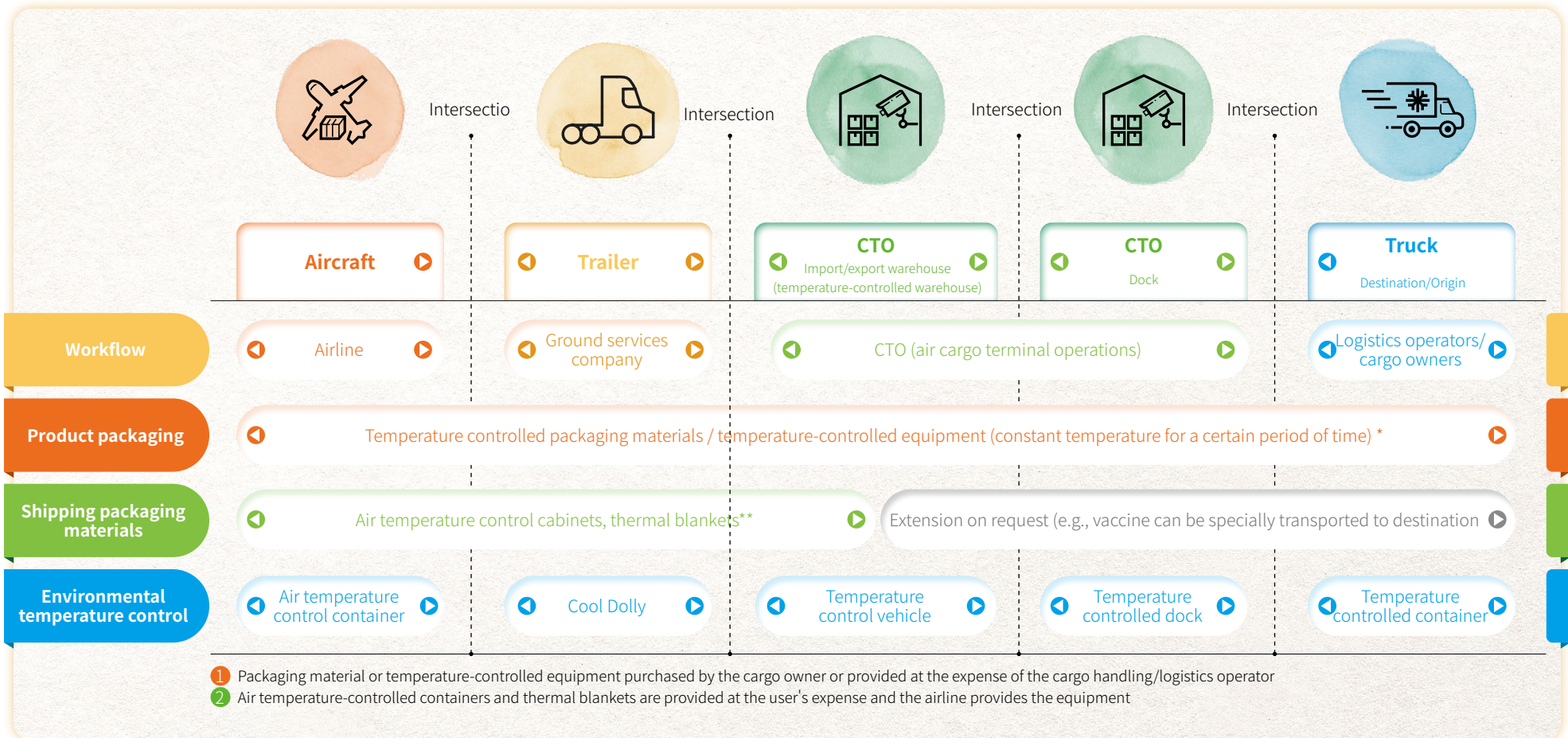
Note: Customs, Immigration, Quarantine, Security, etc. are referred to as CIQS.





Promote the benefits of IATA's CEIV Pharma

- Taiwan has excellent advantages to develop cross-border emerging logistics. In addition to actively and continuously promoting the logistics platform for cross-border e-commerce, Taiwan will promote the integration of a more internationally competitive aviation cold chain logistics platform with government cold chain logistics-related units.
- Strive for more international freight forwarders to use TTIA for cargo transshipment and value-added, so as to make up for the predicament of stagnant import and export cargo volume due to the out-migration of supply chain.
- Provide undisrupted and internationally competitive cold chain logistics solutions, and strive for international cold chain logistics opportunities in the fresh food and biotech-pharmaceutical industries.





Import and coordination operations of COVID-19 vaccines

In response to the need for cold chain transportation of COVID-19 vaccines, the Company began to study the temperature control equipment for each temperature range of vaccines and the readiness of domestic airlines, air cargo terminals and logistics operators in 2020. Later, in line with the procurement of COVID-19 vaccines, the Company invited the CDC and the relevant vaccine signing and review and delivery units to discuss and propose a "aircraft-side pickup" fast-track departure plan, so that the vaccines could be delivered to the designated storage logistics center in the fastest possible time. For each vaccine import, we act as a single window to coordinate with relevant units to facilitate fast customs clearance and importation, and assist CDC in waiting and recording at the Airport.

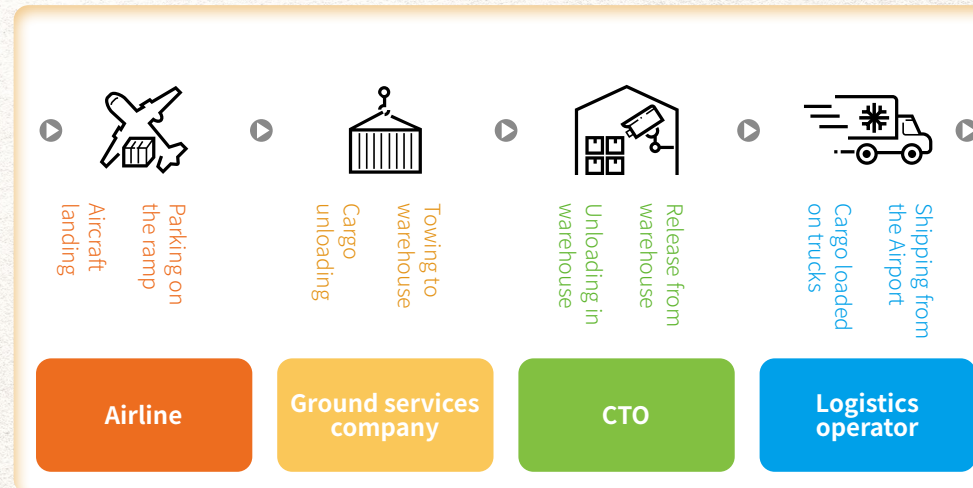
Since March 3, 2021, when the first batch of COVID-19 vaccines was imported into Taiwan, we have successfully assisted in the importation of 56 batches of vaccines, totaling approximately 38.03 million doses, by the end of 2021.



Vaccine import operations

To ensure confidentiality, cargo owners informed us only 0-2 days in advance

"Aircraft landing" to "shipping from the Airport" was completed within 65 minutes





3 New cargo park and second free trade port project

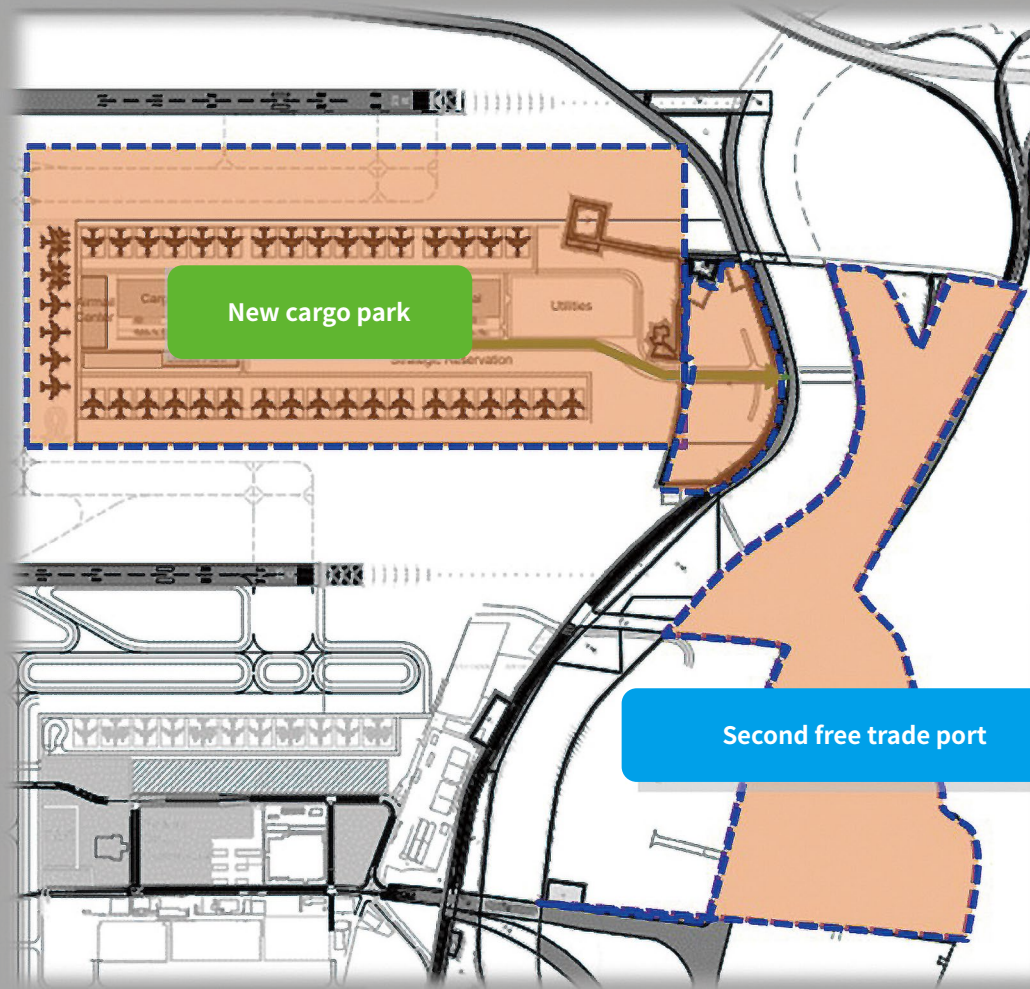
In response to the yearly growth of air cargo at TTIA, and to revitalize the airport economy and increase the overall revenue, TIAC will build a new cargo park and a second free trade port on the northeast side of the Airport to reach a cargo capacity of 4.02 million tons by the target year (2040) in accordance with the second edition of the outline plan.

New cargo park

In order to effectively promote the new cargo park, the Company has established a policy steering committee and a pre-operating coordination platform to promote the intelligent management of "human, vehicles and goods" and to pursue the development goal of "smooth flow of goods" to realize the airport cargo logistics blueprint and strengthen horizontal communication channels.

Work priority

- In line with the comprehensive plan of the third runway, take stock of the new cargo park for development
- Propose airside and landside space and configuration of land space
- Re-plan the air cargo terminal area, storage capacity and related functional configuration
- Review the designation of the cargo park control area and airside control measures for cargo terminals
- Review air logistics workflow and related issues and propose feasible solutions
- Plan the information management platform of the new cargo park



Second free trade port

The second free trade port is currently under construction, which includes a cold chain warehouse, an expansion of the logistics zone, the second phase of the air cargo terminal, and five value-added parks, and is expected to create trillions of dollars of import and export trade value and tens of thousands of jobs by the end of 2023.

Work priority

- Industrial development trends and case studies of overseas free trade ports
- Overall development positioning and base planning concept
- Business market survey and suggestions on the most suitable development mode
- Explore the relationship between the new cargo park, the first and second free trade ports and their development to maximize the combined effect of the airport park

Chapter 4

Low carbon commitment with substantive sustainability acts

Key response to stakeholders

- Employees
- Aviation sector operators
- Collaborating partners
- Neighboring residents



Chapter summary

In response to global climate change, TTIA has been actively implementing various energy and resource management projects, and through the improvement of airport infrastructure in the terminal and concourse, and the replacement of drainage facilities in the passenger halls, TTIA has been able to jointly reduce its energy consumption. We were awarded the Airport Carbon Accreditation (ACA) Level 3 achievement and the Gold Award in the Asia Pacific Green Airport Category, both by ACI. TIAC will continue to make efforts to protect the environment and the earth through the influence of its corporate value chain.





Material topic management approach: Climate change response



Policies and commitments

TIAC has established the following environmental policy and sustainability commitments:

- 1 Comply with laws and regulations and fulfill our responsibility to save energy and reduce carbon emissions
- 2 For environmental, carbon and energy management systems, establish management performance indicators
- 3 Construct a low-carbon operating environment and reduce greenhouse gas emissions year by year
- 4 Support green design and procurement to promote environmental sustainability
- 5 Promote energy-saving and carbon-reduction education and cultivate employees' awareness of environmental protection
- 6 Invite stakeholders to participate in carbon management



Goals

Short-term goals

- Continuously manage energy and greenhouse gases and promote joint reductions with tenant companies
- Evaluate the feasibility of applying for Airport Carbon Accreditation (ACA) Level 4 of the Airports Council International (ACI) and move toward a low-carbon sustainable airport

Medium- and long-term goals

- Set a 30% reduction in greenhouse gas emissions per passenger in 2025 compared to 2013



Complaint mechanism

Please refer to: [Stakeholder communication and material topics of 2021](#)



Evaluation mechanism

- Conduct annual tracking, review, and continuous refinement in accordance with the ACA guidelines of ACI to achieve accreditation status.



Specific actions

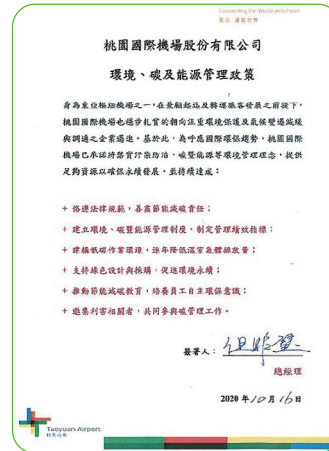
- Launched the climate change adaptation action plan, and the third runway comprehensive plan with a land remediation and drainage plan
- Completed the lighting and equipment improvement project for Terminals 1 and 2 for energy efficiency improvement of 7,168,658 kWh of electricity, reducing a total of 3,598 tons of CO2e emissions per year.
- Starting in 2021, non-electric vehicles will not be allowed to enter or pass through the baggage handling yard to reduce the use of fossil fuels and the emission of greenhouse gases and air pollutants.
- The number of tenant companies participating in the "Plan for Joint Participation in Carbon Reduction" grew from 59 to 74 companies.
- We conducted 5 environmental education courses, with 499 participants.





4.1 Remarkable achievements in sustainability

In addition to the pursuit of service excellence and operational efficiency, TIAC has also spared no effort in the realm of sustainable environmental protection, promoting green airport in all directions in the hope of mitigating the impact of climate change and doing its part to protect the earth while continuing to grow and thrive. TIAC has an "environmental, carbon and energy management policy", and its various energy and resource management projects have received international recognition, including the improvement of airport infrastructure in the terminal and concourse, the replacement of drainage facilities in the passenger halls, and the promotion of joint reduction in the Airport, thus exerting the influence of the corporate value chain.



Environmental, carbon and energy management policy

Airport carbon accreditation program of ACI

Since 2015, TIAC has been actively participating in the ACA program of ACI. After years of continuous efforts, in 2020 we were recognized by ACI for achieving ACA Level 3 - Optimisation, and our accreditation is valid until February 2023.

ACA is promoted by ACI and is the only globally recognized accreditation standard for airport carbon management. There are currently 59 airports in the Asia Pacific region that have been certified with ACA, and only 33 of them have achieved Level 3 or higher, such as Hong Kong Chek Lap Kok International Airport, Incheon International Airport in Korea, Kansai International Airport in Japan, Osaka International Airport in Japan, and Narita International Airport in Japan.

As internationally renowned tourism hubs, international airports have been the focus of much attention in proposing specific actions for sustainable carbon reduction. Airports participating in ACA should not only independently disclose and obtain

verification of greenhouse gas emissions, but also propose step-by-step improvement plans to extend the awareness of sustainability to tenant companies, passengers, and employees, and only after independent evaluation and confirmation of the airport's management efficacy should a certificate be awarded based on the results.

Evaluate the feasibility of applying for Level 4 ACA of ACI and move toward a low-carbon sustainable airport.

Asia Pacific green airport recognition by ACI

To promote best environmental practices, minimize the impact of aviation on the environment, and recognize the outstanding achievements of ACI Asia Pacific airports in environmental projects, ACI sends out an environmental survey to the Asia Pacific member airports at the beginning of each year, focusing on a series of issues such as airport environmental policies, noise, ground transportation, air quality, water, waste, energy, greenhouse gas, biodiversity, land and water pollution with a series of self-assessments to be conducted on topics such as environmental policy, noise, ground transportation, air quality, water, waste, energy, greenhouse gases, biodiversity, land and water pollution for self-assessment. Each year, there is a specific theme, and each Asia Pacific airport can submit a project for competition to be evaluated for awareness of environmental practices, senior company involvement, cost effectiveness, environmental benefits, innovation, stakeholder involvement, and applicability.





In 2021, the "Lean Electricity Consumption and Carbon Reduction Project" was submitted and won the gold award in the class of 15 million to 50 million passengers, and the projects submitted since 2018 have been recognized by ACI for four consecutive years. TTIA will continue to fulfill its commitment to sustainable management and take practical actions to help our country achieve the 2050 net zero emissions pledge and join the international community to protect the earth.

The specific contents of the "Lean Electricity Consumption and Carbon Reduction Project" include four sub-projects: the "Operation Strategy Adjustment Project", "LED Energy-Saving Lighting Replacement Project", "Air Conditioner Improvement Project" And "Lifting Equipment Improvement Project". The overall energy saving and carbon reduction performance from 2017 to 2021 was 39,056 kilowatt hours of electricity saved and 19,879 tons of carbon reduced, which is equivalent to the annual carbon absorption of 51 Daan Forest Parks if the annual carbon adsorption capacity of one Daan Forest Park is 389 tons, and the electricity saving is as high as TWD 97.64 million.



"Building a green hub airport" Recognized as a green airport by ACI for three consecutive years

4.2 Response to climate change

To actively address the global aviation industry's climate objectives and to respond to the frequent climate events in recent years, TIAC introduced the Task Force on Climate-related Financial Disclosures Recommendation (TCFD) in 2020 to be actively engaged in climate change risk management and report regularly on the progress of climate related issues at the meetings of the Board of Directors and CSR Committee.

The CSR Committee is responsible for the "climate change risk identification" process at TTIA. The Chairman of the Board of Directors serves as the Chairman of the CSR Committee and coordinates the CSR Committee in formulating corporate strategies, overseeing program implementation, and evaluating performance. The "Environmental Sustainability Group", responsible for issues related to climate change, regularly compiles domestic and international energy saving and carbon reduction trends and climate issues. It submits the implementation results related to climate change issues to the CSR Committee each year. It also assists the Chairman in monitoring and implementing sustainable development, preparing and implementing action plans for sustainable development and ethical corporate management.

Summary of TIAC's approach to "Governance", "Strategy", "Risk Management", and "Metrics and Targets".

Based on the TCFD framework, TIAC has classified its risks into transformation risks (including policies and regulations, technology, market and reputation) and physical risks (including immediate and long-term risks), and established a list of risk and opportunity issues by collecting global industry risk management reports, and then corresponding and classifying this list of risk issues with the authority and responsibility of various departments within TIAC for correlation linkage.

Since the Company's long-term climate change strategy should be consistent, and the climate risks and opportunities at the Airport are not significantly changing, the Company had decided to use the results of the 2020 TCFD work for its climate change strategy and work for 2021.

According to the TCFD climate change identification, a total of 9 climate related risks were collected, and the impact hazard was derived by cross analysis of the likelihood of occurrence and the degree of operational impact. The result is indicated by the size of the circles in the matrix, and a total of 3 high risks and 1 medium risk are highlighted.



Governance

- In March 2019, the Board of Directors approved the goal of "reduction and climate change adaptation in safe airports".
- TCFD was introduced in 2020 to identify climate change risks of TIAC
- The implementation results related to climate change issues are discussed in the CSR Committee presided by the Chairman every year.



Strategy

- Regularly identify short-, medium-, and long-term climate-related risks and opportunities, and analyze the impact of these risks and opportunities on the organization's operations, strategy, and financial planning using the TCFD as a framework.
- Evaluate the resilience of the organization's strategy under different climate scenarios.



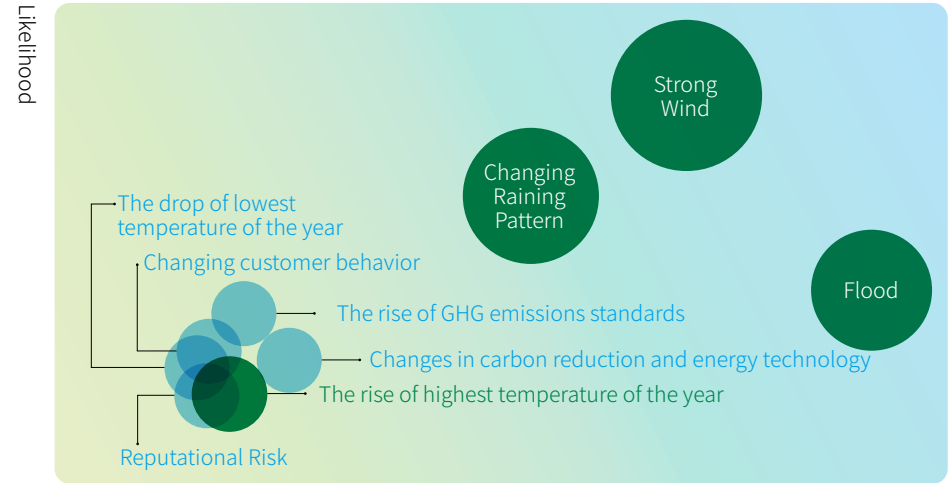
Risk management

- Analyze the likelihood and impact of risks using the TCFD framework and ISO 31000 risk management guidelines to rank risks and determine risk control methods.
- The overall risk management system is stipulated in the "Internal Control System", and the operating procedures and control points for tsunami, wind disaster and drought (water outage) are stipulated in the "abnormal incident response and business interruption prevention management".
- The "self-assessment report on internal control system" (including climate change issues) for the whole company is compiled annually and submitted to the President and Chairman of the Board of Directors for approval and presented to the Board of Directors after the approvals.



Metrics and Targets

- **Adaptation:**
In line with the national climate change adaptation policy and in order to complete the adaptation capability of air transportation facilities, the Company focuses on the "Comprehensive Plan For The Third Runway Of Taiwan Taoyuan International Airport" and takes various adaptation actions to reduce climate risk and vulnerability to enhance the adaptation capability and resilience of airport facilities.
- **Mitigation:**
Set a reduction target for "greenhouse gas emissions per passenger" and conduct an annual inventory and verification of greenhouse gas in Scopes I and II, and conduct an inventory in Scope III to identify sources of greenhouse gas generation and conduct focused management; at the same time, promote the "Taoyuan International Airport Corporation Ltd. Joint Carbon Reduction Program" and invite tenant companies to participate in the carbon reduction program.



Degree of the Sum of Operation Impact Weights

Item	Category	Climate related risk	Risk issue	Risk level	Material Financial Impact
1	Physical risk	Acute	Strong winds	High	✓
2	Physical risk	Acute	Flooding	High	✓
3	Physical risk	Chronic	Change in rainfall patterns	High	✓
4	Physical risk	Chronic	The rise of highest temperature of the year	Moderate	✓
5	Transition Risk	Technology	Changes in carbon reduction and energy technology	Low	
6	Transition Risk	Market	Changing customer behavior	Low	
7	Transition Risk	Policy and Legal	The rise of GHG emissions standards	Low	
8	Transition Risk	Reputation	Reputation risk	Low	
9	Physical risk	Chronic	The drop of lowest temperature of the year	Low	





Impact of climate change risk and countermeasures

Risk	Impact	Financial impact	Countermeasures
Strong winds	Strong winds cause disruptions to operations at TTIA, affecting the Company's equipment (such as air bridges) and ground transportation, which in turn reduces revenue.	In order to ensure the safety of passengers boarding at TTIA, the Company performs annual maintenance of the air bridges and replaces them as appropriate. In the past five years, capital expenditures for air bridge replacement totaled TWD 446 million, and a total of TWD 96.82 million was spent on maintenance and replacement .	The Company has measures in place to reduce operational disruptions caused by strong winds. <ul style="list-style-type: none"> • The Company has measures in place to reduce operational disruptions caused by strong winds. • Annual typhoon preparation and coordination meetings are held before the typhoon season. • In case of a large number of delayed flights, a meeting will be held to discuss accelerated processing of these flights. • Observe the wind speed on the ramp, and if the wind speed reaches the target, the bridges will be fastened, the bridges will no longer be used, and the parking space will be arranged and adjusted as necessary and flight announcements will be issued.
Flooding	Flooding and changes in rainfall patterns will cause flooding of underground infrastructure, flooding of surface transportation systems, and disruption of public infrastructure, resulting in disruption of operations.	The Company spent TWD 4,931 million on drainage and remediation work during the third runway construction project to ensure that there would be no temporary accumulation/storage of water on the runway.	For flood control and drainage of TTIA, the third runway construction project took into consideration "runway control elevation planning", "drainage work", "extreme weather response", and the estimated flood level of the neighboring streams for a 200-year recurrence period, so that the runway would not have temporary accumulation/storage of water.
Change in rainfall patterns			
The rise of highest temperature of the year	ICAO concludes that high temperatures are an important consideration in the design of airport runway lengths. Some aircrafts may not be able to reach their maximum take-off weight at high temperatures, and this may also accelerate runway damage.	In the third runway construction plan, the Company had already determined that a longer runway would be used for flight safety. However, after further consideration of climate change, the length of the runway was extended even further, at a total cost of TWD 35,805 million.	When constructing the third runway, the Company made allowances in the runway length and runway pavement design for the risk of climate change. For example, the runway pavement is made of hard pavement for the third runway planning and construction, in order to address the issues of climate tolerance, service life, ease of maintenance, technical proficiency and life-cycle cost.





First in the global aviation industry to receive a TCFD Conformity Statement

In order to effectively implement climate change mitigation and adaptation and to achieve the goal of a sustainable and safe airport, TIAC applied and received a TCFD conformity statement from an international third-party verification institution, in November 2020, making it the first aviation operator in the world to receive a TCFD Conformity Statement. We expect that through the influence of TTIA, we can lead the aviation industry and state-owned enterprises in Taiwan to achieve the goal of sustainable development.

Climate change adaptation

Immediate physical risks (extreme weather incidents), such as strong winds or flooding, can have a major impact on TTIA, including operational disruptions, ground transportation disruptions, and public infrastructure disruptions, which not only reduce revenue, but also have a negative impact on the brand image of TTIA.

In order to prevent the disaster caused by the typhoon, the Company has established the "Procedures for stopping the usage of and tying air bridges at Taiwan Taoyuan International Airport" and installed anemometers at the key ramps to help differentiate the wind speed between the north and south ramps of Terminals 1 and 2. During strong wind periods, the ramp anemometers are used for air bridge protection, stopping the usage of air bridge, and bridge fastening operations at TTIA, where the maximum instantaneous wind speed reaches 37 knots (wind force 8) as the air bridge protection benchmark, 48 knots (lower limit of wind force 10) for bridge stopping, and 55 knots (upper limit of wind force 10) for tying to maintain safety.

In order to protect TTIA from flooding, the Company's flood control and drainage planning projects include runway control elevation planning, drainage construction, and review of the flooding tendency map of the surrounding areas of TTIA.

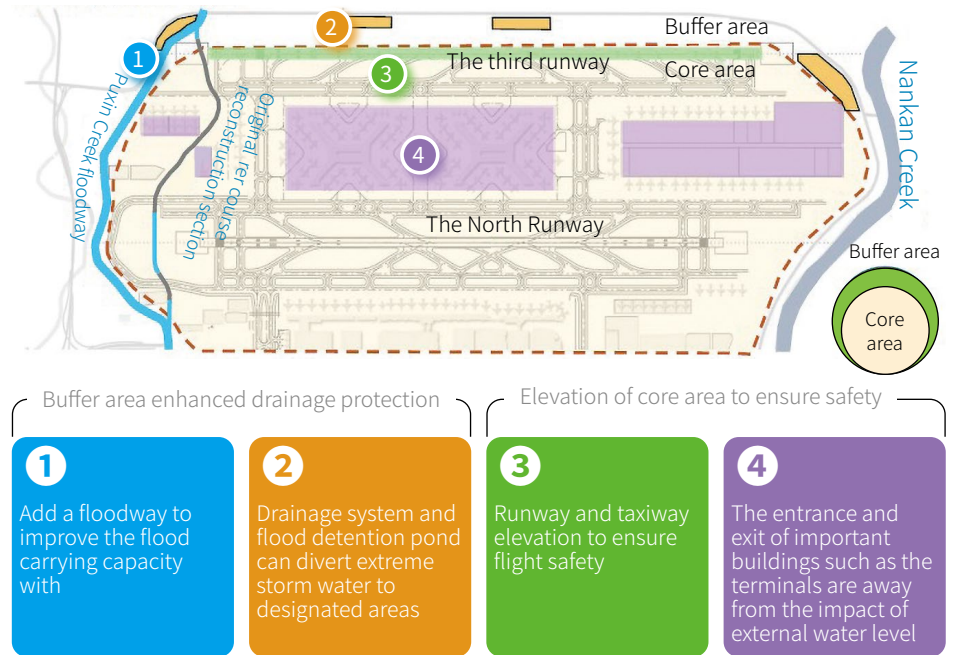
Long-term physical risks include changes in rainfall patterns or changes in temperature. The former includes flooding of underground infrastructure, flooding of surface transportation systems, and disruption of public infrastructure at TTIA, and damage to airport surface facilities (e.g., runways and taxiways), increase demand for heating or cooling capabilities of facilities, and increase stress on local public infrastructure (e.g., increased demand for electricity and water). TIAC will be in line with our national action plan for climate change in response to long-term physical risks. The Company's main adaptation action plan is the third runway comprehensive plan, and the current contents of the Company's adaptation and strategic planning items are as follows:

When planning the construction of the third runway, we have also considered the issue of climate change disasters, mainly from typhoons and rainstorms, so we have separate airport drainage plan for the core area and the buffer area. The core area includes important buildings such as the runway, taxiway, and terminals, while the buffer area is around the northern boundary, near the Nankan Creek and Puxin Creek floodways. The ultimate goal is to withstand once-in-a-century floods, improve the Airport's flood protection, and ensure that important airport facilities are not affected by short-duration intense rainstorms for the 200-year recurrence period.

Results of comprehensive plan

Land remediation and drainage - drainage and flood control planning

Drainage and flood control resilience objectives





Climate change mitigation

As a hub in East Asia and an important gateway to Taiwan, TIAC is actively cooperating with international organizations (such as ICAO, IATA, ACI) in their policies to reduce carbon emissions in the aviation industry and our 2050 net zero emissions commitment. TIAC actively proposes energy-saving and carbon-reduction measures and assists other aviation industries to reduce carbon emissions in order to achieve the purpose of climate change mitigation.

Before carrying out energy saving and carbon reduction work, we must first understand our own carbon emission structure, so, we have conducted an organization-level greenhouse gas emission inventory and passed the external verification of ISO 14064-1, and also set a 30% reduction target in greenhouse gas emissions per passenger by 2025 compared to 2013 (currently, due to the impact of the COVID-19 pandemic, passenger traffic has dropped significantly, and whether we can meet the target depends on the development trend of the pandemic).

Greenhouse gas emissions over the past three years are as follows, while the outbreak of the pandemic in 2020, which led to significant decline in passenger traffic, resulted in an increase in unit passenger emissions; ACI has announced that greenhouse gas emissions for 2020-2021 will only be used for reference in the future and will not be officially used, so the performance indicators for those years are not included in the assessment for the time being. Moving forward, we will continue to actively respond to the trend of energy saving and carbon reduction through various energy saving and carbon reduction projects.

	Unit	2019	2020	2021
Scope 1	Tons CO ₂ e	18,541.13	9,983.60	9,925.56
Scope 2	Tons CO ₂ e	100,736.32	94,232.90	87,436.48
Total carbon emissions (Scope 1 + 2)	Tons CO ₂ e	119,277.45	104,216.50	97,362.04
Emissions per passenger	kg CO ₂ e / passenger	2.45	14.01	108.07

Remarks:

- ① The emission coefficients of fugitive emission sources such as gas and diesel, refrigerant, and incinerator combustion are calculated according to the "greenhouse gas emission coefficient management table version 6.0.4" published by the Environmental Protection Administration, Executive Yuan, and the source of GWP value refers to the IPCC fourth assessment report (2007).
- ② The electricity emission coefficient is based on the 2020 electricity coefficient of 0.502 kg CO₂e/kWh published by the Bureau of Energy, Ministry of Economic Affairs.
- ③ TTIA's greenhouse gas emissions are calculated using the operation control weighting method to set the inventory scope.
- ④ It is expected that the ISO 14064-1 verification for the fourth quarter of 2021 will be obtained.

In order to expand our understanding of the greenhouse gas management situation at TTIA, we inventoried the aircraft landing and take-off cycle (LTO), auxiliary power unit (APU) usage, ground support equipment, employee travel and commuting, and other major indirect sources of emissions, with a total of 653,205 tons of CO₂e in 2021. as shown in the right table:

Type	Description	Emission in 2021
Upstream and downstream transport	Aircraft (full flight, LTO, APU, engine run-ups), and airside transport	564,682.77
Employee commuting	Airport employee commuting	723.5
Passenger/tenant staff transport	Public access and vehicles	76,572.94
Business travels	Airport staff business travel	1.97
Tenant	Electricity purchased, emergency generator, and fire training	32,962.30
3rd party	Process emissions (off-site/third party: waste, water, refrigerants) and airport constructions	6,948.97

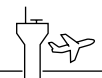
Energy usage

TIAC is a public transportation service company and does not manufacture any products. Therefore, its energy usage is mainly about purchased electricity, public service vehicles and ground operation vehicles at the Airport. In order to reduce air pollution emissions and create a friendly environment in the airport area, the Company has been implementing an electric vehicle introduction program since 2016, and will give priority to the installation for electric vehicles thereafter, while non-electric vehicles will not be allowed to enter or pass through the baggage handling yard from 2021 onward to reduce the use of fossil fuels and the emission of greenhouse gases and air pollutants.

In order to keep track of energy usage and to make continuous improvement, we keep getting certified with the ISO 50001 energy management system.

Energy saving and carbon reduction measures

TTIA has implemented energy-saving and carbon-reduction policies and low-carbon operations through the establishment of energy management performance indicators, the management and cooperation of tenant companies, and the review and replacement of major equipment, in order to reduce operational carbon emissions; in 2021, we completed the lighting and equipment improvement projects in Terminals 1 and 2 to improve the energy efficiency of the lighting system, saving more than 70





The energy usage of TTIA over the past three years are listed below

Year		2019		2020		2021	
Energy type	Unit	Usage	Heating Value (GJ)	Usage	Heating Value (GJ)	Usage	Heating Value (GJ)
Diesel (mobile source)	Liters	35,532	1,249	31,730	1,116	33,435	1,175
Diesel (stationary source)	Liters	197,513	6,945	10,190	358	170,158	5,980
Automobile gasoline	Liters	49,837	1,627	43,701	1,427	41,399	1,351
Purchased electricity	kWh	197,908,965	712,464	185,133,407	666,473	171,815,056	618,232
Total	GJ	722,286		669,374		626,738	

Note: The calorific value is calculated according to the "greenhouse gas emission factor management table version 6.0.4" published by the Environmental Protection Administration, Executive Yuan

million kilowatts of electricity and reducing carbon emissions by a total of about 3,598 tons of CO₂e.

We have installed solar PV power generation equipment on the roof of the second terminal expansion area with a capacity of 90kW, and encourage land tenants to install solar PV power generation equipment on the roof of idle land or their own buildings. We currently have an installation capacity of 360kW. We are currently planning to install an additional solar PV power generation unit with a capacity of 80kW on the roof of the boarding promenade of Terminal 3. Moving forward, we will continue to pay attention to the trend of renewable energy development and assess the feasibility of purchasing renewable energy.

Besides, we require baggage trailers to become electric in the baggage transport area. The benefit of this is that there are no emissions, which is good for the health of our ground services employees. The second issue is noise. Diesel engines are very noisy, so they are replaced with electric vehicles, there will be no such issue. The third issue is the cost of electric vehicles. Compared to fuel vehicles, the initial costs for electric vehicles are higher, but the subsequent maintenance and electricity costs are much lower. Therefore, it is beneficial for operators to invest and build electric vehicles in the long run. The Company expects to provide 66 slow-charging electric guns (1 percent of total vehicles) and 33 fast-charging electric guns (0.5 percent of total vehicles) in its parking lots by 2025, in line with its energy-saving and green environment policy, and to effectively improve air quality.

In addition to our own carbon reduction measures, the Company also actively helps other aviation industries to reduce carbon emissions; for example, the installation of "pre-conditioned air (PCA) and fixed electrical ground power (FEGP)" on air bridges helps airlines to reduce carbon emissions, because PCA and FEGP equipment is equipped with power and air conditioning for aircraft, which will reduce the fuel used by airlines for auxiliary power units (APU), ground power units (GPU), etc. The energy efficiency of PCA and FEGP is higher than the fuel used by the above equipment. Therefore, we encourage airlines to use PCA and FEGP to reduce carbon emissions. In addition, we are continuing to replace the air bridges in Terminal 1. We plan to replace a total of 27 air bridges over a six-year period to improve the quality of service for passengers and to reduce electricity consumption by improving the efficiency of equipment use. In 2021, the total saving in aviation fuel usage reached 3,640 tons, and the carbon reduction was 11,491 tons of CO₂e, which is considerable.



Introduction video for pre-conditioned air (PCA), and fixed electrical ground power (FEGP)





4.3 Green friendly airport

Green airport culture

Since 2017, we have established the "Plan for Joint Participation in Carbon Reduction". By 2021, the number of participating tenant companies has grown from the initial 59 to 74. Through education, training, and communication, TIAC is working together with them to implement practical actions to save energy and reduce carbon in the airport park; for example, using bridge gas and bridge electricity, and using electric baggage trolleys for ground services companies. We also regularly disseminate new information on sustainable environmental protection for the reference of our tenant companies.



Environmental education

TIAC aims to become a benchmark for sustainable airports in the Asia-Pacific region. In addition to implementing concrete actions to save energy and reduce carbon emissions, we actively communicate with all parties to promote environmental protection and green practices, such as posting energy-saving and sustainable slogans in the waiting rooms, departure and arrival halls, and toilets of TTIA, encouraging employees to use stairs instead of elevators, and not actively providing disposable tableware and straws in the restaurants of TTIA. We hope to use our influence to promote environmental awareness and spread the spirit of sustainability to passengers.

Moving forward, to raise the environmental awareness of the airport personnel and resident companies, and to build a green airport culture, the Company will hold green education of different themes every year. In 2021, we invited airport employees and tenant companies to participate in the "ecological audit development and related regulations and case sharing" and "flowers and plants" to understand the importance of cherishing environmental resources, with a total of 5 sessions and 499 participants.





Green resource conservation

TIAC will do its best even for the smallest green actions in the operation process. Therefore, when purchasing office supplies, we give priority to products with a green label. At present, the products with the green label that TIAC has given priority to us are as follows:



Recycled plastic waste bags



Recycled photocopying paper



Printer toner

In addition to purchasing the three products with the green label mentioned above, TIAC actively participates in the "green procurement declaration for private enterprises and organizations" of the Environmental Protection Administration, and continues to appeal to all divisions and offices to cooperate with the procurement process in order to improve the performance and achievement rate of green procurement. According to the expected value of government green procurement items set by our country in 2021, TIAC has achieved 90.15% of green procurement; its green procurement amounted to TWD 7,640,037, which shows that we use a large number of products with green label and save resources.

The promotion of electronic and paperless documents has been the Company's direction of continuous promotion and improvement, and we are pursuing the goal of paperlessness in all aspects. TIAC has implemented an online sign-off process internally, with official documents posted electronically on the bulletin board for all divisions and offices to track and browse the status, and has also adopted the "electronic exchange" method for issuing documents, uploading electronic files attached to articles to the Internet. In 2021, the Company reduced paper consumption by 7.98%. In addition, for suppliers who have existing contracts but have not yet joined the electronic document exchange system, the Company will notify them to join the electronic document exchange system as soon as possible. In 2021, the adoption rate of electronic document exchange by suppliers increased by 14.14% to 53.11% from 46.53% in 2020. In addition, since 2021, the Company has been optimizing the billing

process and integrating the system platform information, gradually pushing forward and actively promoting the electronic billing service since early 2021, from the official launch of the application rate of 48.37% in June 2021 to the application rate of 98.43% in January 2022, so the promotion result is remarkable, and we also started to fully implement the electronic billing policy from March 2022. This will not only speed up the document processing, but also save paper, which will lead the way for other companies to follow.



Electric billing service



Drawing management system

TIAC has set up a drawing management system for the purpose of managing the electronic files of drawings for various projects in the airport park that have been delivered (including new construction, expansion, renovation, facility maintenance, and other types of drawings), and to collect and store the historical drawings (scanning and surface calibration) and drawings in recent years by means of an information system. The Company's information system is used to store the Company's historical project drawings (scanned and corrected surfaces) and drawings for projects recently completed. We have sorted out and created files for the various drawings and uploaded them to the drawing management system, for a total of approximately 110,000 drawings.

The abnormal incidents of each pipeline system (water, electricity, gas, air conditioning, fire fighting, etc.) in the terminals are recorded in the overlap mapping drawings to show the risk status, and the records of abnormal incidents of each pipeline system are kept in the system, which can be linked with the existing relevant drawings on the system for reference, and also linked with the disaster location marked in the overlap mapping drawings to facilitate comparison and cross-checking. It can also improve the subsequent overlap mapping and comparison of historical drawings with the current situation, reduce operational errors, and reduce the retention of documents and unnecessary waste of resources.





4.4 Environmental sustainability management

In order to effectively manage environmental and energy issues in the activities and service processes of auxiliary airline transportation services, TIAC has established an environmental and energy management system based on the ISO 14001 and ISO 50001 international standards to facilitate continuous improvement of the Company's environmental and energy performance.

Waste management

The waste of TIAC can be divided into two major parts: the first is the equipment and apparatus retired in the Airport, the domestic waste generated by passengers and employees (e.g., bottles, cans, metal cans, glass, etc.); the second is the waste removed by the airlines from aircrafts. Because the waste removed from aircrafts comes from outside of Taiwan, in order to avoid the invasion of foreign germs, TTIA has an incinerator, which is the only airport in Taiwan that has its own incinerator, specifically for the disposal of aircraft waste and combustible waste left by airport terminals, duty-free stores, restaurants, and different airlines, and also for the destruction of protective clothing worn by pandemic prevention personnel and pandemic prevention waste materials to ensure that pandemic prevention work is in place. Air pollution prevention and control is also taken seriously, and the current emissions are lower than the regulatory standards, and our current daily treatment capacity is about 30 to 40 tons.

In view of the fact that the continuous emission monitoring system (CEMs) of the opaque rate analyzer and flow rate analyzer have been old and malfunction from time to time, therefore, the continuous automatic monitoring facilities of our incinerator and other renovation projects are still under implementation, including the addition of two sets of CEMs and improvement of peripheral facilities, CEMs will be connected to the Department of Environmental Protection of Taoyuan City Government, and relevant data will be sent back every 15 minutes for real-time monitoring, which will help to keep track of the data and facilitate management in real time. It is currently undergoing final connection testing and is expected to be completed by May 2022.



Taiwan Taoyuan International Airport No. 4 incinerator plant

The No. 4 incinerator at this Airport is certified and supervised by the Department of Environmental Protection of Taoyuan City Government for legal operation, and has obtained a stationary source operation permit, a waste cleanup plan, and a self-treatment permit. Along with the fact that we have obtained ISO 14001 environmental management system certification, we establish environmental protection control policies and achieve pollution prevention goals.



Incinerator process equipment is divided into five categories

Garbage reception system	Weigh station, dumping gate, waste crusher, waste storage pit, waste crane.	
Incineration treatment system	Rotary kiln incinerator, secondary combustion chamber, primary air combustion fan, auxiliary combustion machine.	
Ash treatment system	Bottom slag cooling equipment, bottom slag conveying equipment, fly ash conveying equipment, bottom slag storage pit, bottom slag crane.	
Energy recovery system	Plate heat exchanger	
Exhaust treatment system	Bag filter dust collector, catalyst reaction tower, induced draft fan, chimney	





We have a central control room at the No. 4 incinerator plant to control and monitor the entire incineration process and to maintain the best automatic control of the incineration operation. The operation processes of waste reception, combustion status in the incinerator and exhaust treatment can be monitored and controlled centrally by the technical personnel in the central control room through the DCS decentralized control system. In addition, we have also installed plate heat exchangers to recover the thermal energy from the high temperature exhaust generated by waste incineration through the process equipment heat exchangers.

- 1 The thermal energy is used to heat the primary combustion air to increase the incinerator temperature and combustion efficiency, which can significantly reduce the use of diesel fuel in the combustion engine and achieve the effect of energy saving and carbon reduction.
- 2 Heat the temperature of the exhaust from the chimney with the thermal energy, which can avoid having white smoke generated by the cooling of the exhaust and affect the flight safety.
- 3 The thermal energy can increase the temperature of the catalyst reaction tower to increase the removal efficiency of nitrogen oxides and dioxin in the exhaust.



Incineration upgrade and efficiency upgrade

Air quality management Indoor air quality

TTIA has more than 40 million passengers a year, and as a large indoor public facility, it should conduct air quality monitoring and management every two years in accordance with the Indoor Air Quality Act and its sub-laws of the Environmental Protection Administration. TIAC monitors carbon dioxide, formaldehyde, bacteria, and suspended particulates less than 10 microns in size in all major spaces, including the departure check-in lobby, arrival hall and waiting rooms, food and beverage areas, and stores. The standard values and sampling points of each item are listed below, and the monitoring conditions are all satisfactory.

Taoyuan International Airport Corporation Ltd. indoor air quality monitoring list

Item	Standard value	Number of sampling points in the Airport
Carbon Dioxide (CO ₂)	1,000 ppm /8-hour value	4
Formaldehyde (HCO)	0.05 ppm /1-hour value	4
Particle size less than ten microns (μm) of suspended particulates (PM10)	75 μg/m ³ /24-hour value	4
Bacteria	1,500 CFU/m ³	17

Air pollution control

Air pollutants from air travel to and from the Airport or from moving vehicles within the Airport and from aircraft taxiing can have an impact on the environment. In order to reduce air pollution in the TTIA area, we advocate for transfer by public transportation, reduction of vehicle idling time, and replacement with electric vehicles in the Airport. In addition, TTIA has an incinerator, which generates air pollutant emissions during combustion. We have multiple facilities to detect emissions and reduce the generation of pollutants. [Please refer to waste management for details.](#)





In 2021, we established the "Taiwan Taoyuan International Airport Air Quality Maintenance Zone" and implemented the "Baggage Handling Yard Air Quality Improvement Project". In cooperation with the Department of Environmental Protection of Taoyuan City Government, diesel passenger and cargo vehicles entering the Taiwan Taoyuan International Airport air quality maintenance zone must pass inspection before they can pass through. The promotional period began on September 1, 2021, and the official effective date was January 1, 2022. In addition, the air quality improvement plan for the baggage handling yard is to prohibit fuel trailers from entering and crossing the underground baggage handling yard after January 1, 2021, and only electric vehicles will be allowed to enter. This will not only improve the air quality of the ground services personnel's operation area, but also promote their physical and mental health, and reduce carbon emissions.

 **Water resource management**

TIAC's main water usage is are for domestic purpose and irrigation, such as washing of passengers and employees, maintenance of plantings, and cleaning of airport buildings and grounds. The main source is the tap water supply system, and there is no significant usage of water or extraction of natural water bodies or groundwater. At present, TIAC treats the wastewater generated from the airport toilets at the sewage treatment plant and then recycles it to water the 4,200 trees and plants at the Airport. For raw drinking water equipment and water supply pump stations, we have implemented equipment maintenance management, including: preventive maintenance, patrol inspection and efficiency improvement, and standard operating procedures for handling abnormal conditions, which not only effectively improve service quality and water supply efficiency, but also control the use of water resources from the source and reduce waste.

In addition, TIAC plans to implement the water efficiency management system (ISO 46001) by the end of October 2022, establish a water balance chart, review the water supply situation, adjust the appropriate water pressure, and gradually replace the existing water meters with smart water meters to facilitate the planning of subsequent management actions.

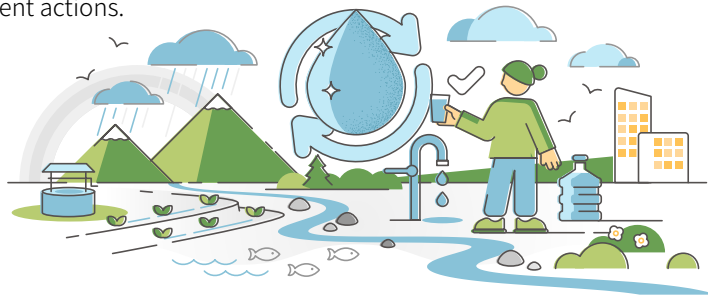


Table of water usage of Taoyuan International Airport Corporation Ltd. in the past three years (Unit: million liters)

	2019	2020	2021
Water withdrawal	2,612.85	2,495.08	1,933.92
Water discharge	1,481.10	761.05	464.59
Water consumption	1,131.75	1,734.03	1,469.33
Water recycling	14.13	20.62	11.21

Note: TIAC only gets a small amount of water from groundwater for watering plants and dust suppression, mainly from the Taiwan Water Corporation

TIAC conducts water quality inspection and monitoring in accordance with the law, and the relevant personnel are certified as "dedicated wastewater and sewage treatment specialists (Class A)" and "specific chemical substance operation supervisors" by the country. A laboratory was also set up to regularly examine the sampled sewage, including suspended solids, biochemical oxygen demand, chemical oxygen demand and pH values) There were no serious leaks or fines for violations of laws and regulations in 2021, and the monitoring conditions are all satisfactory.



2021Table of Taoyuan International Airport Corporation Ltd. water pollution monitoring indicators for 2021

Item	Standard value	Unit
Suspended solids (SS)	30	mg/L
Biochemical oxygen demand (BOD)	30	mg/L
Chemical oxygen demand (COD)	100	mg/L
pH value	6~9	No unit



Taoyuan International Airport Corporation Ltd. wastewater treatment project content and benefits for 2021

Project name	Description of the improvement content	Benefits
Upgrading of biological tanks and related facilities at wastewater treatment plant	The existing biological pond was modified as anaerobic treatment units to reduce ammonia nitrogen emissions, and one new biological pond was added as a backup for overall operation. Continuous monitoring equipment was added and connected to the Department of Environmental Protection of Taoyuan City Government for the monitoring of the discharge data in real time. The fast-filter pond was converted into a fast-filter tank to improve water filtration efficiency and quality.	Ammonia nitrogen discharge is below 10mg/L

Noise monitoring and management

TTIA is an important public transportation facility for the country. We have a convenient transportation network and high-density flights, serving tens of thousands of passengers daily. With the advancement of globalization and the booming development of the aviation industry in various countries, the number of passengers and the number of flights is growing continuously, and the aviation noise generated by take-off and landing, as well as the airport noise generated by passenger and vehicle operations, passenger and cargo loading and unloading, and airport construction are issues of common concern to the society and local residents.

We are committed to monitoring the noise levels of aircraft arrivals and departures at TTIA, designating the location of aircraft test runs (engine operation tests), banning test runs from 00:00 to 06:00 daily, and banning the use of auxiliary power units (APUs) at the northeast corner cargo parking area throughout the day, except for aircraft pushback operations, to reduce airport noise to reduce the impact of airport noise on nearby residents.

TIAC currently has 18 fixed monitoring stations located in the Lujhu District, the Dayuan District, Guanyin District, Xinya District, and Zhongli District for field monitoring. Professional personnel will analyze the wind direction, season, ground noise and aviation noise information, providing "noise monitoring report" every quarter. In addition, we provide monthly "feedback payment" and "noise prevention fee" to the Taoyuan City Government as a reference for aviation noise prevention, feedback payment and the designation of aviation noise control areas, to maintain a good relationship with the local government and local residents and to give back to the society.



Noise monitoring results of Taoyuan International Airport Corporation Ltd. in 2021

Public petition

- Cooperate with the Department of Environmental Protection of the Taoyuan City Government to conduct a survey at the site based on the public petition, and if the noise is indeed serious, relocate the fixed monitoring station at the airport to the site for long-term monitoring.



For more information on noise control standards, monitoring data, or announcements, please use the noise website of the Department of Environmental Protection of Taoyuan City Government or scan the QR code to go there.



Compensation payment

- Provide the "feedback payment" to the Taoyuan City Government, which is 2/15 of the landing fee, based on the maximum take-off weight of each aircraft.
- Provide the "noise control fee" to the Taoyuan City Government, which is 2/15 of the landing fee, based on the maximum take-off weight and take-off volume of sound each aircraft flight.

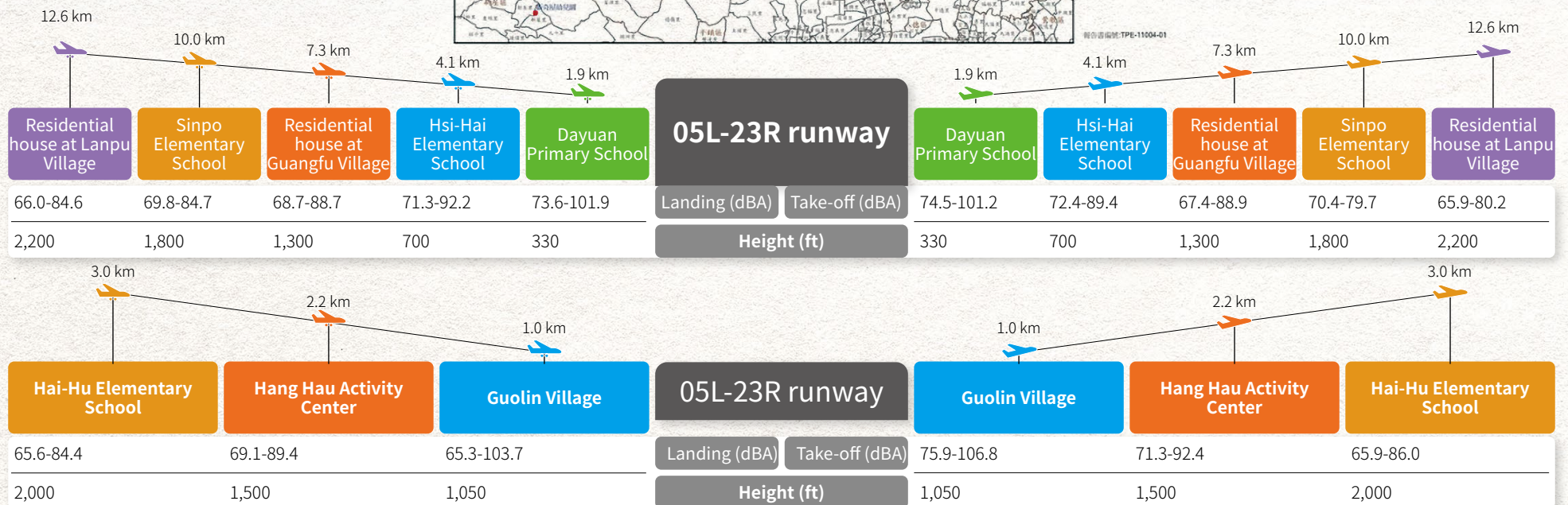
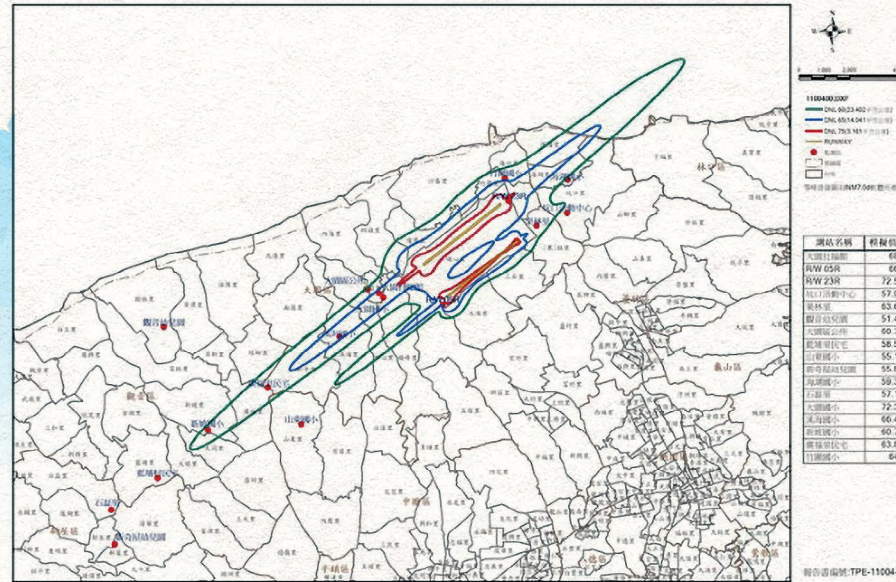
Noise monitoring report

- Provide quarterly "noise monitoring reports" to the Taoyuan City Government as a basis for the Taoyuan City Government to designate noise control areas (to be reviewed every 2 years).





Image of Taoyuan International Airport Corporation Ltd. crossing height and noise level for 2021



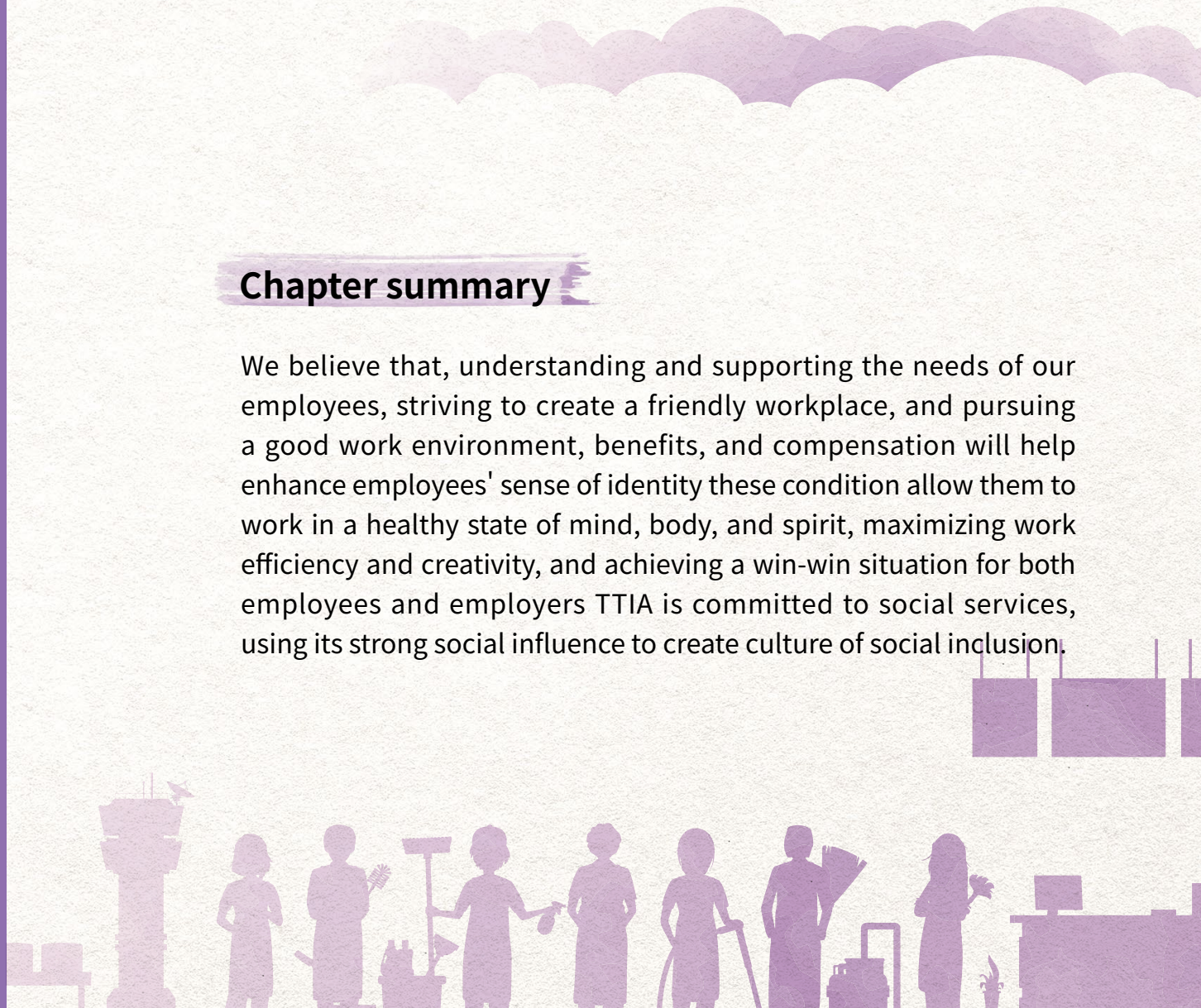
Chapter 5 Friendly workplace, creating co- prosperity value

Key response to stakeholders

- Employees
- Collaborating partners
- Neighboring residents

Chapter summary

We believe that, understanding and supporting the needs of our employees, striving to create a friendly workplace, and pursuing a good work environment, benefits, and compensation will help enhance employees' sense of identity these condition allow them to work in a healthy state of mind, body, and spirit, maximizing work efficiency and creativity, and achieving a win-win situation for both employees and employers TTIA is committed to social services, using its strong social influence to create culture of social inclusion.





Material topic management approach: Occupational safety and health



Policies and commitments

We regard our employees as one of our most important assets and actively plan and execute the selection, training, employment and retention functions in accordance with the Company's strategic development to promote the efficacy of talent management and development. At the same time, the occupational safety and health management system has been built independently and continuously optimized with PDCA to achieve the highest goal of zero disaster and zero accident, to protect TIAC and the safety and health of all the partners in TTIA.



Goals

Short-term goals

- Annual planning of activities related to the employee assistance program.
- 20 hours of learning for unit personnel.
- Regularly amend the collective agreement between labors and management to maintain labor relations.

Medium- and long-term goals

- To ensure that our human resources rules and regulations are reasonable and compliant in order to promote employee relations management and maintain labor-management harmony.
 - Pursue "zero disaster and zero accident" as the highest goal
- Establish the Taoyuan International Airport Corporation Ltd. Academy to strengthen the efficacy and function of human resources training in the airport industry.



Complaint mechanism

Please refer to: [Stakeholder communication and material topics of 2021](#)



Evaluation mechanism

- In accordance with the MOTC's annual personnel and business performance appraisal, we appraise the annual business performance and the results of the annual internal control audits within the Company to review and adjust operations.



Specific actions

- Conducted 3 gender equality working group meetings and 2 courses.
- Conducted 14 training sessions on occupational hazards, with a total of 2,443 participants.
- Conducted 4 sessions of occupational disaster counseling for contracted vendors, totaling 7 participants; also conducted 5 sessions of "occupational safety and health self-management audit and counseling" for a total of 16 participants.
- Conducted 1,385 training sessions, with an average of 116 hours of training per employee.
- A total of 280 people used the EAPs counseling service. The overall average EAP satisfaction score was 5.27 out of 6.
- Actively engaged in giving back to society, including industry-academia cooperation, volunteer promotion, social welfare and arts activities, showing social influence.



5.1 Human resource

Composition of manpower

TIAC is a state-owned enterprise under MOTC, therefore, all employees of TIAC are regular and full-time employees, and there are no contractors. The number of employees in 2021 was 653.

Composition of manpower in 2021

Year		2021					
Category	Item	Male		Female		Total number of people	
		Number of people	Percentage	Number of people	Percentage	Number of people	Percentage
Employee composition	Full-time employees	451	69%	202	31%	653	100%
	Contract employee	0	0%	0	0%	0	0%
Employment Type	Manager	52	12%	30	5%	82	13%
	Non-manager	399	57%	172	26%	571	87%
Age	18-30	27	4%	38	6%	65	10%
	31-50	296	45%	122	19%	418	64%
	51 years old or above	128	20%	42	6%	170	26%
Education	Doctoral degree	5	1%	0	0%	5	1%
	Master degree	150	23%	86	13%	236	36%
	Bachelor degree	178	27%	93	14%	271	41%
	College degree	49	8%	13	2%	62	10%
	High school or below	69	11%	10	2%	79	12%

We actively follow the national policy and make good use of our resources to employ physically and mentally challenged and indigenous people by providing them with job opportunities and the best work environment to protect their quality of life so that they can work with peace of mind and give full play to their talents. The following shows the employment situation.

People with disabilities
14

As a percentage of total employees
2%

Indigenous people
7

As a percentage of total employees
1%

Personnel recruitment and retention

New recruits are the basis for the vitality and innovation of the Company. Considering that TIAC's industry characteristic is airport operation and management, it is difficult to find personnel in the general employment market. Therefore, with the exception of specialized duties, we recruit mainly for junior positions. In addition, the Company has been working on the long-term planning of the management personnel needed by TIAC in line with personnel training programs, the establishment of a talent pool, and the construction of major airport facilities.

We conduct annual recruiting campaigns for personnel in the areas of construction management, aviation management, operations management, and administration, based on the core business. In accordance with the Administrative Law of State-Owned Enterprise, we are required to conduct external public selection of new recruits in two ways: by our own recruitment and by outsourcing to external agencies. In addition to announcing the selection process on the official website of TIAC, we also recruit through the general job banks without any differentiation for any reason or consideration. In 2021, there were 26 new recruits, making for a new recruit rate of 1.0%.





TIAC employees have a sense of loyalty and identification with the Company, and most of them serve for a long time until they retire. 13 employees left the Company in 2021, with a departure rate of 3.69%. In response to the departure of employees, TIAC actively understands the reasons for departure as a basis for improvement, and listens to the opinions of employees to continuously improve our human resources policies and practices in order to provide the best work environment for employees.

	2019	2020	2021
New recruit rate	4.9%	8.4%	1.0%
Departure rate	4.6%	3.6%	3.69%
Voluntary turnover rate	1.3%	0.8%	2.0%
Involuntary turnover rate (including retirement)	3.3%	2.8%	1.69%

- New recruit rate = number of new recruits in the year / (number of persons in employment at the end of the previous year + number of persons in employment at the end of the current year)/2
- Turnover rate = number of departures in the year / (number of persons in employment at the end of the previous year + number of persons in employment at the end of the current year)/2

New recruits/departure statistics for 2021

Gender	Age	Number of new recruits	Percentage	Number of turnover	Percentage
Male	18-30	7	26.9%	1	7.7%
	31-50	10	38.5%	3	23.1%
	51 years old or above	1	3.8%	3	23.1%
Female	18-30	5	19.2%	0	0.0%
	31-50	3	11.5%	5	38.5%
	51 years old or above	0	0.0%	1	7.7%

- New recruit rate = number of new recruits in the year / (number of persons in employment at the end of the previous year + number of persons in employment at the end of the current year)/2
- Turnover rate = number of departures in the year / (number of persons in employment at the end of the previous year + number of persons in employment at the end of the current year)/2

Gender equality

Every year, TIAC follows the gender equality promotion plan set by MOTC and implements various operations, including various surveys and statistics, and conducts related training according to the annual plan objectives. In addition, we have set up a Gender Equality Working Group (and Sexual Harassment Prevention and Grievance Review Committee), which includes two external experts and scholars. A total of three meetings of the Gender Equality Working Group were held in 2021. In addition, we are actively implementing gender equality work in accordance with the 15 statutory items and 4 recommended items in accordance with the "Checklist for Compliance with the Gender Equality Act "



Gender Equality Working Group (and the Sexual Harassment Prevention and Grievance Review Committee) work

- Providing consultation, guidance and planning on gender equality
- Publicity and promotion of gender equality concepts.
- Implementation of gender mainstreaming for current employees.
- Other gender equality promotion matters.

Percentage of female managers among all managers :
36.7%





In 2021, we conducted two gender equality-related education and training courses on "Gender Equality and Prevention of Sexual Harassment" and "Gender Equality (Domestic Chore Sharing with CEDAW Provisions)". In order to ensure that all employees can work at TTIA with peace of mind, we have established a Sexual Harassment Employee Grievance Committee in addition to using various meetings and training courses to convey the message of gender equality, and we have set out the disposal directions for investigation and disciplinary action for sexual harassment prevention and treatment to eliminate the occurrence of sexual harassment. If any grievance is received, the handling procedures of the Committee will be activated to handle the case, and if the grievance is substantiated, disciplinary action will be taken. The contents of the grievance, the parties involved, and the investigation process will be kept confidential to protect the privacy and legal interests of the parties involved. The Company received no grievances in 2021.



Gender equality education course



Channel for handling sexual harassment grievance and advisory



Hotline: +886-3-2733896



E-mail: sba@mail.taoyuan-airport.com



Gender Mainstreaming Section



Handling Rules for Investigation and Disciplinary Action for Sexual Harassment Prevention and Treatment



Application for Investigation of Sexual Assault or Sexual Harassment



Gender equality (Employment discrimination) appeal form





Genderfriendly restrooms

Through clear signage and wording, passengers of all genders and ages are welcome to use the restrooms.



Breastfeeding and milk collection room

The room is equipped with an emergency bell, refrigerator, reclining chair, automatic locking door, power supply, and hand washing facilities for the convenience of mothers who need to breastfeed or collect milk.



Friendly parking spaces for pregnant women and mothers with young children

There are 115 pink parking spaces for pregnant women and children under 6 years old in the airport's parking areas P1-P4 and the cargo parking lots



Parenting support

Located next to the arrival hall of Terminal 1, we assist airport employees with childcare at the airport nursery, creating a friendly and convenient work environment.





5.2 Safe and healthy workplace

TIAC has established an Occupational Safety and Health Committee to promote work safety, prevent accidents, improve the work environment, and maintain employee health. The Committee is chaired by the President to take be in charge of the committee affairs, with the managers of relevant divisions and offices, representatives of labor unions, occupational safety personnel, and medical personnel as members. Among them, one-third of the total number of members are union representatives, who represent the labor side to jointly participate in the deliberation, coordination and proposal of various occupational safety and health related businesses of TIAC The Committee holds regular meetings once a quarter, with a total of 4 meetings in 2021.

TIAC's occupational safety and health policy, with the highest goal of pursuing "zero disasters and zero accidents", has set five major principles:

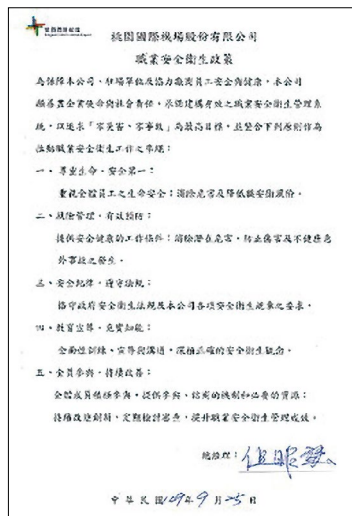
1 Respect for life and safety first

2 Risk management with effective prevention

3 Safety discipline and legal compliance

4 Promotional education to enhance knowledge

5 Continuous reform with the participation of all employee



Occupational safety and health policy

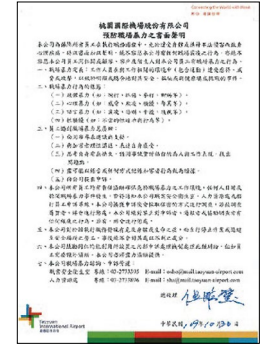
In order to protect all employees from physical or mental abuse that may lead to mental and physical illness in the course of performing their duties, the President of TIAC signed a "written statement on the prevention of workplace violence", which does not tolerate any acts of workplace bullying, including physical violence, psychological violence, verbal violence, and sexual harassment. Taoyuan International Airport Corporation Ltd. workplace violence consultation and grievance channel.

Occupational Safety and Health Assessment Department hotline: 03-2733395

osho@mail.taoyuan-airport.com

Human Resources Department hotline: 03-2733896

sha@mail.taoyuan-airport.com



Written statement on the prevention of workplace violence

In order to protect TIAC and the safety and health of all partners at TTIA, we have established our own occupational safety and health management system and obtained the dual certifications of "Taiwan occupational safety and health management system (CNS 45001:2018) and the international occupational health and safety management system (ISO 45001:2018)" in 2019. The management system covers all of our employees and tenant companies to confirm that the management mechanism continues to operate effectively.

We expect to effectively prevent occupational hazards through the establishment of hazard identification, risk assessment, and risk control procedures. We also conduct internal and external audits regularly every year and hold management review meetings to review audit deficiencies and results. Through the management cycle of Plan, Do, Check and Act, we ensure the effective operation of the occupational safety and health system to achieve the highest goal of zero hazards and zero accidents.





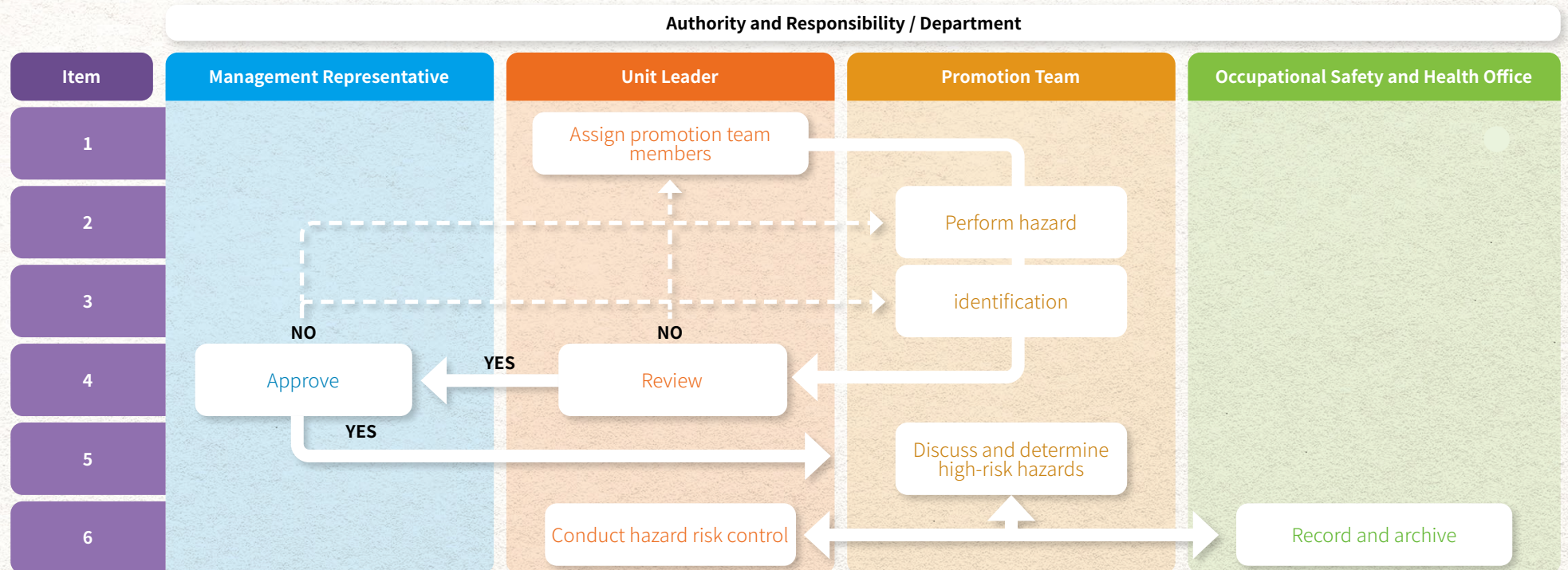
Workplace hazard anagement

We regularly conduct workplace hazard identification and risk assessment every year, review the completeness and appropriateness, and proactively take control measures and improve countermeasures for high risks to avoid occupational hazards. We conduct semi-annual operating environment monitoring for indoor workplaces in buildings with centralized air conditioning and for workplaces where noise is noticeable, in accordance with the law, and have not exceeded the permissible exposure standards.

In 2021, TIAC did not have any occupational disease cases or work-related fatalities, and there were only two occupational accidents. In order to prevent occupational accidents and reduce risks, the Company conducts investigation into each accident to determine the cause and responsibility of

the accident and to prevent recurrence. We propose improvement measures and prevention mechanisms to prevent recurrence of occupational accidents. The Company shall punish those who violate the regulations in accordance with the respective rights and responsibilities. The Company has prepared an "occupational accident prevention plan" and adopted six implementation plans, including ① risk assessment and control, ② implementation of hierarchical management, ③ promotion of safety awareness, ④ strengthening of self-management, ⑤ construction safety control, and ⑥ regular performance appraisal, and set quantitative targets to achieve the goal of reducing the risk of occupational accidents.

Work environment hazard identification, risk assessment and control measures process









Four high-risk hazards

According to the results of the 2021 occupational safety and health risk assessment, there are four high-risk hazards, and the Company has set improvement plans and targets for each of these high-risk hazards.

High-risk hazards

<p>Of the Company's third phase of the terminal construction, the interface is complex and the common operation and operation risk is high.</p>	<p>In response to the pandemic, employees are required to do various urgent pandemic prevention acts so have to deal with irrational complaints, reactions, and requests for emergency prevention actions.</p>	<p>Failure to identify potential risks and eliminate hazards in advance may affect employees' physical and mental safety and health.</p>	<p>The guardrail on the north side of the exit lane on 3F of the second terminal has an opening of more than 2 meters in height.</p>
<p>Strengthen safety and security management of construction tenders</p> <ul style="list-style-type: none"> • Cooperation with labor inspection agencies • Plan supervision of construction tenders and special inspection of occupational safety and health management by construction vendors 	<p>Prevent workplace illegal abuse</p> <ul style="list-style-type: none"> • Organize workplace abuse seminar for regular employees • Organize manager training on workplace abuse • Organize training for employee caregivers 	<p>Hazard identification and risk assessment operations</p> <ul style="list-style-type: none"> • Organize hazard identification and risk assessment courses • Assemble contracted vendor hazard identification risk assessment form • Organize hazard identification and risk assessment promotion • Conduct checkups for self management of contracted vendors' occupational safety and health hazard identification 	<p>Improve the opening of the guardrail</p> <ul style="list-style-type: none"> • Improve the opening of the guardrail on the north side of the exit lane 





 Occupational disaster

Year	The Company							Contracted vendor			
	Frequency of disabling disasters	Severity rate of disabling injury	Total injury index	Other disabling injury accidents		Number of days lost to disability injuries	Number of non-disabled injuries	Other disabling injury accidents		Number of days lost to disability injuries	Number of non-disabled injuries
				Number of cases	Number of people			Number of cases	Number of people		
2021	2.29	42	0.31	2	2	37	0	7	9	662	3
2020	1.60	21	0.18	2	2	27	0	4	4	539	5
2019	2.40	85.74	0.04	3	3	107	0	5	6	182	2

 List of implementation plans for occupational disaster prevention countermeasures

Implementation plan	Execution content	Implementation plan	Execution content
Risk assessment and control	<ul style="list-style-type: none"> Supervise, audit (check) risk assessment in the planning and design phase Allocate safety and health-related funds to be included in the construction tender documents and contracts. 	Reinforce self-management	<ul style="list-style-type: none"> Hire external experts to assist in counseling to strengthen the contracted vendors' self-management ability. Supervise and review the implementation of key items such as daily "pre-work education" and pre-construction safety inspection by supervision units and vendors.
Implement hierarchical management	<ul style="list-style-type: none"> Conduct quarterly construction occupational safety supervision and hire external experts to supervise occupational safety practices. Each construction contracted unit conducts construction occupational safety audits and implements occupational safety management. The processor applies for occupational safety inspection to ensure construction sites comply with safety and health regulations. 	Construction safety control	<ul style="list-style-type: none"> Convene the joint coordination organization meeting to implement the contract management and communicate the agreement matters. Implement safety and health audits for high-risk operations to reduce the risk of occupational disasters. Conduct labor safety inspection of the work area for tenders with occupational disasters
Raise safety awareness	<ul style="list-style-type: none"> Conduct occupational safety and health promotion activities for company employees and contracted vendors' personnel. Organize various safety and health education and trainings to enhance occupational safety knowledge and professionalism. Enhance safety and health promotion through letters, announcements or emails from time to time. 	Periodic performance appraisal	<ul style="list-style-type: none"> Conduct safety and health performance appraisal of contracted vendors to control the safety and health standards of contracted vendors. Hold occupational disaster review meetings to discuss improvement measures to prevent recurrence. Organize safety and health performance rewarding activities for contracted vendors to encourage vendors with excellent occupational safety

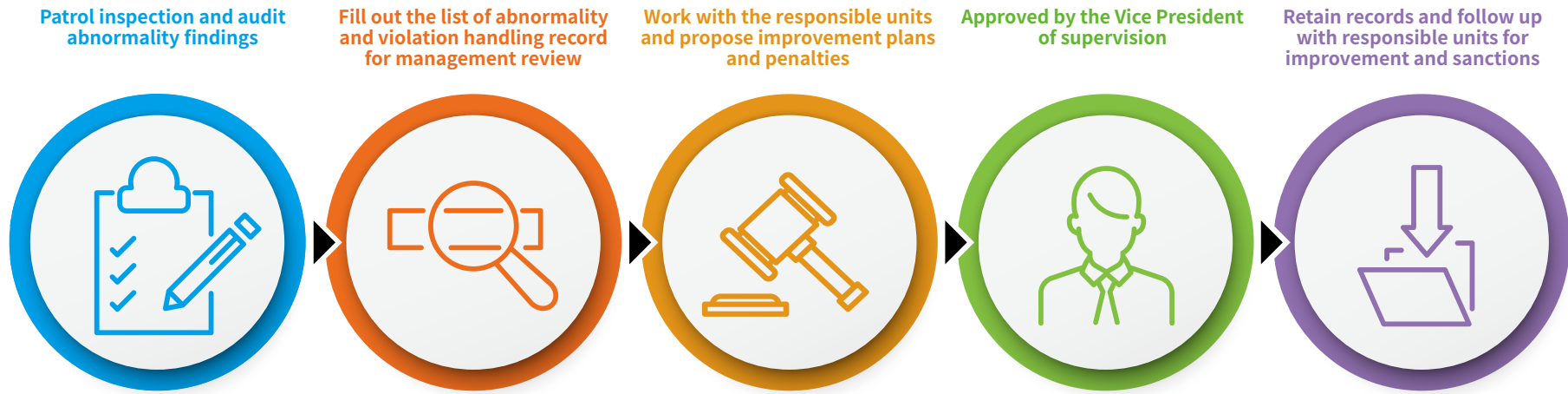




 **Safety and health audits and patrol inspections**

We conduct safety patrol inspections for service and construction contract cases from time to time, and supervise the contracted vendors to take necessary safety and health measures. For the relevant deficiencies, we will request the contracted vendors to make immediate improvements, and we will also impose penalties for violations. In 2021, the 17 non-conformities identified by the internal audit of the occupational

safety and health management system were improved as scheduled. The abnormal cases with a higher percentage of irregularities as per ad hoc patrol inspections are inadequate fall protection, abnormal construction scaffolds, and workers not wearing safety protection gears. All of the abnormal cases that occurred were improved and reviewed as scheduled.



 **Occupational disaster**

	Electrical hazard	Falling down and collapsing	Fire	Falling Down and dropping	Environmental abnormalities	Vehicle warning	Constructin scaffold abnormalities	Safety protection	Hanging hazards	Office work documents	Abnormality items	Improvement Items
Total	11	10	21	137	16	1	61	86	6	40	389	389
Percentage	3%	3%	5%	35%	4%	0%	16%	22%	2%	10%	100%	100%

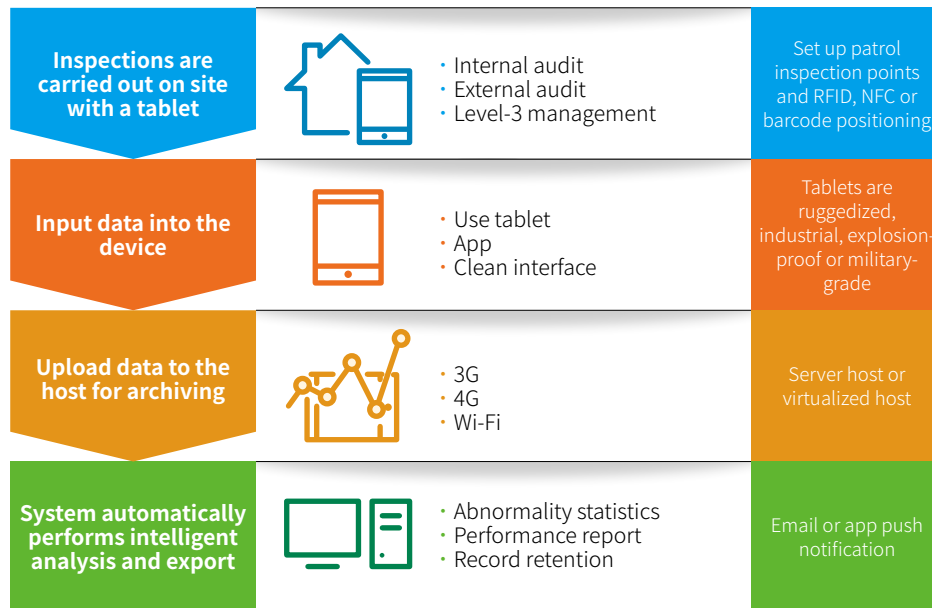




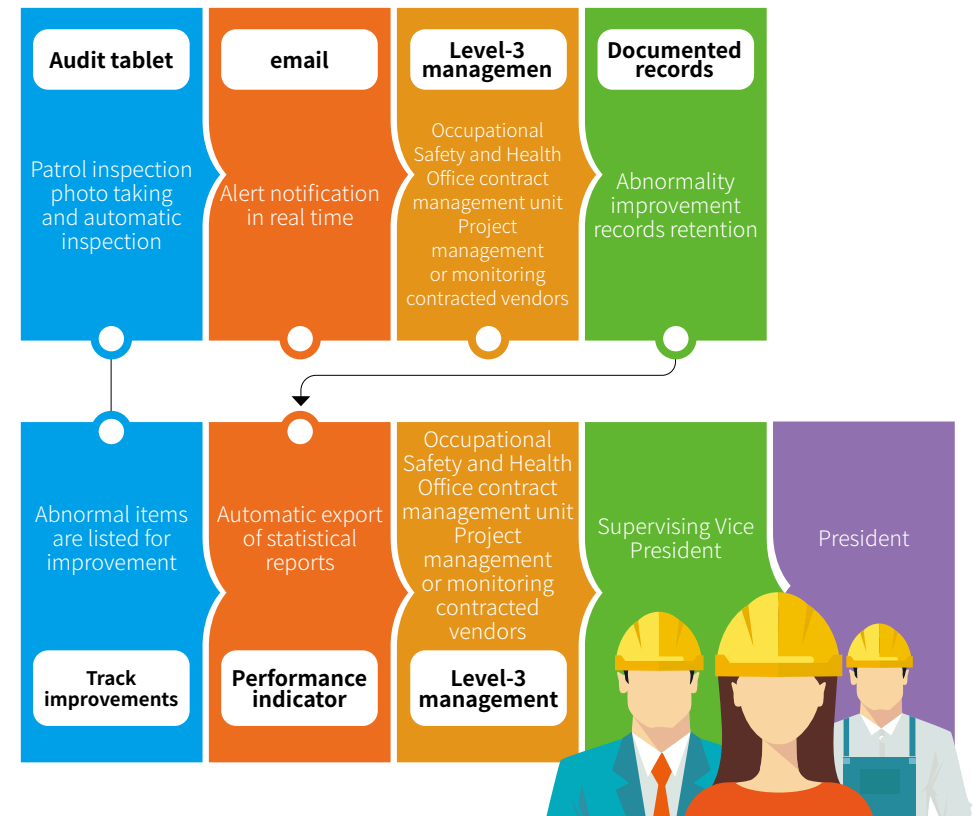
Safety patrol inspection operation

Introduce e-operation to improve patrol inspection efficiency

TIAC has implemented an OSH e-system, which not only enhances the management efficiency of TIAC through information-based patrol inspection, but also ensures that the contracted vendors comply with the OSH regulations during the contract period, strengthens the on-site construction management culture, raises the safety awareness of the contracted vendors, and improves the work environment to reduce the occurrence of occupational hazards and protect the safety and health of workers.



The Company has patrol inspection routes for high-risk work areas through the occupational safety e-information system, and the patrol inspection is carried out by the construction vendors, supervision units, project organizer and OSH personnel with tablets. If there is any non-compliance with the regulations, we will immediately take photos by tablet and register their location by GPS, and send the photos, non-compliance terms, source of law and penalty information to the construction vendors, supervision units and processors. The execution records of patrol inspections, abnormalities and other related information will be alerted, notified, statistically analyzed and tracked for improvement through the e-system, effectively enhancing the patrol inspection efficiency and mastering the abnormality improvement situation.





OSH promotion and training

TIAC aims to strengthen the communication and liaison with all airport-related operating units on OSH matters to ensure that all relevant units fully understand the OSH regulations and coordinate the required cooperation. Hold quarterly "Joint Agreement Organization Meeting" and invite all contracted vendors and tenant companies of TIAC to participate. In addition to enhancing the education and requirements on Occupational Safety and Health Act and on-site operations, specialized lecturers are hired to arrange education and training on preventive measures for occupational hazards to enhance the ability of vendors to identify and



OSH education and training for new recruits



OSH virtual reality training for construction industry

prevent hazards and prevent the occurrence of occupational hazards.

In order to enhance the safety and health awareness of airport personnel and contracted vendors' workers, the Company conducts a variety of activities, including education and training, promotion, and contracted vendor counseling, etc., to continuously improve the safety and health awareness of our personnel and contracted vendors and pursue the goal of zero accidents. In 2021, the Company held 14 sessions (including face-to-face and online activities or training) with a total of 2,443 participants.



Hazard identification and risk assessment education and training

110年EAP健康促進週來了!!

- ◆活動時間：
110年11月12(五)~11月26日(五)
- ◆開幕日11月12(五)下午線上活動攤位
1.EAP諮詢攤位
2.身心舒壓攤位
3.睡眠諮詢攤位
- ◆活動期間每日發送健康小知識，
活動後通過測驗發送神秘小禮!!
送完為止歐!!



影片及線上活動報名網址如下

TIAC health promotion week



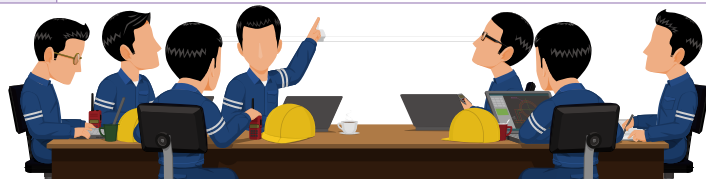


Contracted vendor management

In order to ensure the safety and health of our contracted vendors, we require them to comply with government regulations and TIAC's specific OSH regulations at all stages, from procurement document planning, procurement evaluation, bid award and contract signing, to pre-construction and contract period, and are listed as a requirement for contracted vendors to fulfill the contract to ensure the safety and health of contracted vendors in their operations.

Contracted vendor management process by stage

Procurement document planning stage	The procurement unit fills out the "procurement operation safety and health evaluation form" to confirm that the contents of the contract comply with the law and the actual needs of OSH regulations.
Procurement evaluation stage	In the "bidding vendor selection/review operation note", it is added that if a vendor enters the site to perform business, its ability to perform safety and health management of the subject matter of the bid will be included in the comprehensive evaluation and rating review of the tender documents.
Bid award and contract signing stage	The relevant operation regulations to be followed by the contracted vendor shall be included as part of the contract, and the vendor shall comply with them, and any violations shall be handled in accordance with the contract.
Pre-construction stage	TIAC shall inform the contracted vendor of the work environment, hazards and measures to be taken in accordance with the safety and health laws and regulations and make written records for protection.
Contract period	The organizer and the Occupational Safety and Health Assessment Division will inspect the vendors from time to time, issue penalties for non-compliance and request for improvement.



Contracted vendor management enhancement project

Require contracted vendors to implement pre-construction hazard notification.

For projects with contract amounts over TWD 1 million dollars, the construction vendor is required to take photos for the daily pre-construction hazard notification and upload them to the "Ministry of Transportation and Communications construction safety dynamic real-time management system", while the supervision unit and construction organizer must also confirm the implementation status to the system to ensure that the construction workers understand the day's work and potential hazards before operation, and implement various safety protections to avoid occupational disasters.

Contracted vendor's OSH occupational safety and health self-management audit and counseling

In order to improve the ability of OSH self-management of the contracted vendors of service tenders such as maintenance and operation, TIAC held 5 sessions of "occupational safety and health self-management audit and counseling" for 16 contracted vendors with 30 or more workers in 2021 with external experts and scholars to conduct audit and counseling on abnormal items and supervise improvement on our behalf to maintain the safety and health of workers in the airport park and prevent occupational disasters.

Counseling on construction works of Class D dangerous workplaces

In order to ensure the safety of construction works of contracted vendors, the Company organizes counseling on construction works of Class D dangerous workplace. The Company's representatives conduct counseling according to the safety and health measures to be implemented in accordance with the OSH related documents formulated and implemented at the construction site. A total of 4 sessions were organized in 2021, and a total of 7 contracted vendors were counseled.

Evaluate the safety and health performance of the contracted vendors

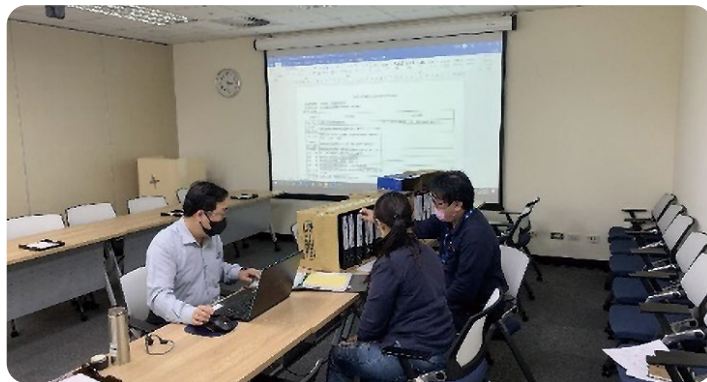
The safety and health performance of contracted vendors during the contract period is evaluated regularly and entered into the "safety and health evaluation form for contracted vendors". Contracted vendors with shorter contract periods may have their safety and health performance evaluated after completion of the project. Contracted vendors with longer contract periods or who are permanently stationed at TTIA should have performance safety and health performance evaluated with quarterly safety and health performance evaluation. The results of the quarterly evaluation will be used as a reference for subsequent contract expansion.

Note: For the definition of Class D dangerous workplace, please refer to the Hazardous Work Place Review and Inspection Regulations.





Counseling on construction works of Class D dangerous workplaces



Contracted vendor self-management and counseling

Employee health care

In order to promote the health of employees and prevent occupational diseases, we have established "guidelines for health management", actively carry out employee health checkups, health management, encourage health promotion, and arrange monthly visits by doctors to protect and understand the health status of employees.

Guidelines for health management

Health checkup



TIAC provides health checkups more frequently than once every two years as required by law, and arranges monthly on-site services by doctors to provide medical consultation and guidance to high-risk employees. If employees work in an environment that exceeds an average of 85 decibels for eight hours a day, special health checkups for noise operations will be performed.

Health management



In order to prevent emerging occupational diseases such as workplace abuse, human-caused hazards and abnormal workload, we have established a protection plan to identify possible hazards, assess the level of risk and take control measures to contain them and formulate the "labor health protection plan" annually to plan activities and events for each year to protect the physical and mental health of employees in all aspects. In 2021, there were no cases of occupational diseases among employees.

Health promotion



Because we are at the doorstep of the country, we are exposed to the risk of importation and transmission of infectious diseases from abroad, and it is our important responsibility to prevent the disease. In 2021, 645 people were vaccinated against severe and specific infectious pneumonia and 275 people were vaccinated against COVID-19 to protect the health of our employees and prevent the spread of diseases.

Maternal health protection

We protect the physical and mental health of our female colleagues during pregnancy, during childbirth, during the first year after delivery, and during breastfeeding to protect their reproductive function and the health of the mother and fetus (baby). For women who work with maternal health hazards, we take measures such as hazard assessment and control, doctor interviewing, risk classification management, job suitability and other related measures.





5.3 Talent development and benefit

TIAC promotes personnel development in accordance with national policies, international aviation industry development trends, and the needs of each unit. Our personnel training policy is "LIST:"



We comply with international labor conventions and domestic labor union laws and other relevant laws and regulations, and employees are free to organize and participate in labor unions. 559 people joined in 2021, accounting for about 85% of total employees. In the event of a significant operational change that may affect employee rights, we will provide advance notice to employees in accordance with government regulations and requirements, with notice periods and terms for consultation and negotiation. We provide various channels of communication and have internal committees to ensure that employees enjoy their rights to freedom and respect.

We hold at least one labor-management meeting per quarter to discuss the rights of our employees. In 2021, we held a total of four labor-management meetings to discuss issues such as employee benefits and rest payments, screening for COVID-19, and relaxation of home office eligibility requirements.

Employee education and training

In order to establish a talent development management strategy, TIAC has established a complete process and long-term applicable talent development historical data by consolidating training management, performance management, function management and other businesses related to the long-term development of employees and promotes online applications and management to improve administrative efficiency and solve the limitation of paper-based operations that have difficulty retrieving historical data. The talent training development management and cloud-based digital learning platform is referred to as eHRD platform. With the assistance of digital technology, we hope to assist employees in self-management and learning, to enable managers to better possess information about employees, and to achieve the goal of shaping a learning organization, and to create a comprehensive talent training program and continue to improve personnel capabilities to enhance the quality and overall competitiveness of employees. In 2021, we spent TWD 13.56 million on training courses, with 1,360 sessions and 18,335 participants, for a total of 72,611 training hours, or an average of 111 training hours per employee.





Type of training	Total number of sessions	Total number of participants	Total number of training hours
Training for new recruits	24	291	12,353
Management function training	25	358	3,555
Professional function development training	480	9,802	36,711
Policy training	830	7,875	19,938
Self-development (Kainan in-service program)	1	9	54
Total	1,360	18,335	72,611

Note: Including digital courses, e-learning and other lifelong learning networks for civil servants and external education and training for employees.



Management function training



Training for general new recruits

"Pursuing innovation and utilizing smart technology" is one of the missions of TIAC, and we will actively promote the eHRD platform. With the assistance of digital technology, we hope to assist employees in self-management and learning, to enable managers to better possess information about employees, and to achieve the goal of building a learning organization, and to create a comprehensive talent training program and continue to improve personnel capabilities to enhance the quality and overall competitiveness of employees.

Integrate the functions of the training management system platform

- Provide complete face-to-face course offering management, instructor management, materials management, course production management and reports
- Provide app for classroom participation.
- Provide online course learning management and reading functions.
- Provide integration with public service learning hours.
- Provide the training process and supporting report required for TTQS Total Talent Quality Management System assessment.

Integrate with company performance management functions

- Be able to develop unit goals and individual goals, and support performance appraisal under project-based organizational structure.
- Provide qualitative and quantitative goal setting for both employees and managers, give immediate feedback to employees, and keep track of performance notes and progress.
- Managers can check the complete performance history of their employees at any time as the basis for career planning, promotion and transfer, training and development, and salary and bonus.
- Flexible system settings can be provided in accordance with the Company's performance management system, including the sign-off process of performance forms and the proportion of forced allocations, and the work objectives and score allocation of behavioral appraisal can be flexibly adjusted according to employee job categories.
- Produce performance management statistical reports for reference by managers and administrative units.

Integrate with company function management functions

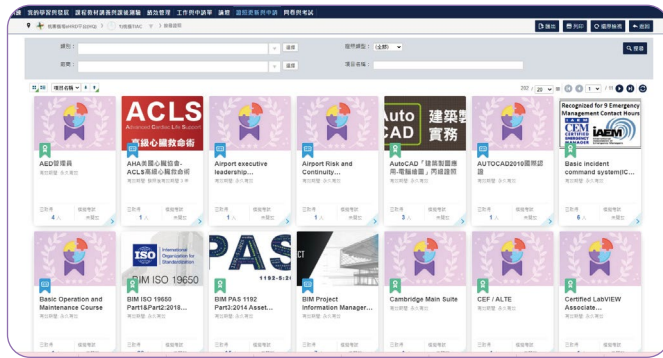
- Provide complete management of function items and job description manuals.
- Provide multi-dimensional evaluation and variance analysis and reports.





Teaching material resource management, with hundreds of video and electronic teaching materials.

License management function, with more than 2,900 employee license records registered



Employee personality test and manager management skills evaluation program

We provide many different services, and as the characteristics of internal talents are diversified, the attributes and personality traits of talents to be employed in safety, administration, operation, aviation, engineering, etc. should be adapted to local conditions. As such, it is necessary to use behavioral science tools to help employees understand their own personality strengths, so that they can show their talents at work, and facilitate managers to help employees develop in the long run, to understand more about them, to provide immediate coaching and guidance, and to assign them to the most suitable positions. We use the American Professional Dynametric Programs (PDP®), a system that measures a person's personality traits, behavior, motivation, change, stress, satisfaction, energy, ambition, and energy consumption.

Implementation purpose

<p>Help individuals to be in the right places that fit their talents</p>	<p>Introduce a personality test tool to help employees understand their own personality strengths and to assist managers in helping employees develop in the long term.</p>
<p>Build high-performance team</p>	<p>Assist employees and managers in interpreting the test reports to understand the differences in personality traits within the team and to facilitate reference for talent assessment when forming a team.</p>
<p>Develop the Company's talent pool</p>	<p>For the reference of screening and nurturing talents and assist them to improve their interpersonal relationships and to further their understanding of themselves, and make good use of their strengths and attributes to develop themselves positively.</p>
<p>Enhance the capability of human resources personnel</p>	<p>Train human resources personnel to use personality trait tools for specialized interpretation and training to develop the Company's talent capabilities.</p>
<p>Care for employees about their work status</p>	<p>This test tool helps managers understand the current state of employees at work, including stress tolerance and job satisfaction, in order to improve job performance.</p>





Implementation results and future application planning



Item	Implementation results	Future application planning
Professional Dynametric Programs (PDP)	Using PDP ProScan, a personality test tool, we administered 643 tests and produced 643 personal development reports and 1 JobScan work model report. We completed 102 manager consultations and 1-to-1 report interpretation services. Conducted 9 group personality trait awareness and application face-to-face and online courses and 2 PDP JobScan courses. Trained 4 counseling coaches.	This personality test tool will be used in the recruitment to help interviewing managers understand the strengths of candidates; to know how employees adapt, and to use satisfaction and energy consumption indicators to further understand employees' work status and improve management efficacy; to conduct annual training courses to help employees understand their strengths, improve cross-departmental communication efficacy, and know themselves and each other to create a more aligned work team.
Managers' management skills assessment program	A total of 87 managers have completed the Managerial Assessment of Proficiency (MAP), and three leadership excellence series courses (6 sessions) have been conducted to address common management competency gaps in managers and provide corresponding refresher courses.	Continuously allow junior managers to complete management competency exploration, plan individual development plans (IDP) based on each manager's management competency strengths and gaps, introduce management coaching counseling, and conduct leadership development workshops to continuously develop managers' management competency.

Employee remuneration and benefits

In order to implement the performance management system and strengthen the link between work performance and personal development, all employees of the Company are subject to regular performance appraisals, including regular appraisals (twice a year) and year-end appraisals. Managers give reasonable evaluations based on the four aspects of the employee in work, conduct, knowledge, and talent. Managers are encouraged to conduct performance interviews with employees to help them set future career development goals. The appraisal results will be used as an important reference for performance bonus, promotion and salary adjustment, and talent development.

In addition, in order to encourage employees and achieve the purpose of meritocracy, the Company regularly conducts promotion arrangements and establishes a selection committee to review promotion plans and scoring standards on a rolling basis so that employees with potential can be selected in a transparent and reasonable manner. The remuneration policy is based on the guidelines for salary management and employee salary table, and the corresponding salary scale is given according to the job grade listed in the job classification, and the additional payments can be set according to the risk and scarcity of the duties and approved by the Board of Directors and reported to the MOTC for recordation. In 2021, the ratio of the standard salary for regular entry-level employees to the local minimum salary is 1.16 times (without any differences based on any reasons, such as gender, ethnicity, skin color, religion, party affiliation, sexual orientation, age, marriage, pregnancy, physical and mental disabilities, blood type, and astrological sign); the average ratio of male to female remunerations for employees at all levels is also close to 1:1.

Average ratio of male to female remunerations for 2021

Type of personnel	Male 	Female 
Senior managers	1	1.13
Mid-level managers	1	1.02
Non-manager	1	0.83

Average remuneration: Includes base salary plus additional amounts paid to workers (including seniority allowances, bonuses, benefits, overtime, etc.).





Adequate labor retirement reserve

TIAC appoints a certified public accountant to calculate the full amount of labor retirement reserve every year. The current contribution rate for the labor retirement reserve is 10% and the contribution rate for the new scheme is 6%. 100% of employees under both the old and new schemes are covered by the pension system. As of December 31, 2021, the balance of the Bank of Taiwan's labor retirement reserve account was TWD 248,544,215, which is sufficient to meet the retirement needs of employees.

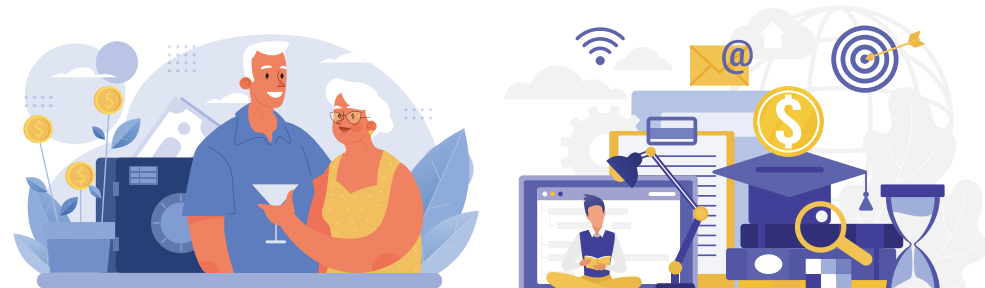
Welfare system

In order to improve the labor environment in the workplace, the Company attaches great importance to the welfare of employees. In 2021, the Company has provided TWD 15.54 million in employee benefits, and the Employee Welfare Committee is actively engaged in various welfare services and recreational activities, and provides various subsidies, group accident insurance, and scholarships for children to protect employees' work and stabilize their family life and to create a quality work environment for developing and retaining talents, and to continue to create a happy workplace in the future.

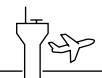
Subsidy items

Supplementary benefits	<ol style="list-style-type: none"> 1 Marriage and childbirth allowances 2 Funeral allowances for employees and dependents 3 Public trust hospitalization allowances 4 Medical rehabilitation leaves 	
Education scholarships	<ol style="list-style-type: none"> 1 Children's education scholarships 2 Subsidies for continuing education 	

Recreation and Leisure	<ol style="list-style-type: none"> 1 Group travels 2 Birthday activities 3 Cultural and recreational activities 	
Other benefits	<ol style="list-style-type: none"> 1 3 festival benefits 2 Retirement benefits for employees 3 Group accident insurance, meal and transportation subsidies 4 Club subsidies 5 Birthday gift money 	



TIAC understands the issue of low birth rate in Taiwan society. Therefore, the Company not only provides more rest days than the law, such as 14 days of wedding leave and 5 days of paid family care leave, but also provides maternity allowance and children's education scholarship. In addition, we also provide maternity allowances and education scholarships for children, from elementary school to college, with a total amount of TWD 110,000 per child, to ease the burden of our employees.





Love Castle Nursery Center

In order to allow our employees to properly arrange childcare and work with peace of mind, we established the Love Castle Nursery Center in August 2018, with independent medical-grade air-conditioning equipment, decorated with the highest standard of non-toxic and healthy building materials, and equipped with 24-hour fire protection and monitored access control systems, and all facilities and equipment comply with relevant regulations, so that our personnel can work with peace of mind and the children can be healthy and happy in the highest standard of childcare environment.

The center has a team of 1 director, 6 caregivers and 1 cook, and an approved enrollment of 30 children (2 months to under 2 years old). The center has an activity area, a sleeping area, a dining area, a kitchen, separate bathing and baby care spaces, and an ecological planting area and three classrooms according to the age of the children.

TIAC plans to set up a workplace mutual-aid educare service center for 2-6 years old children in the arrival area of Terminal 1, so that we can use the workplace space to provide educare facilities and share the responsibility of caring for children with employees. It is planned to have 2 classes of 40 students, with 176 square meters of space, and to build a space that includes an activity room for children, a meal preparation room, a restroom for children and a storage room according to the law, and is scheduled to be completed by March 2022.



Employee Assistance Programs, EAP

TIAC has been promoting Employee Assistance Programs (EAP) since 2015 and has entered the development stage since then, by cooperating with the external EAP specialized organization "Newmind EAP consultant Co., Ltd." and combining with a social resource linkage model through the development of a "program-specific service model". The main services include both work and life aspects, with a total of 280 people using our EAPs counseling services in 2021.

Work aspect	Including work adaptation, organizational change adjustment, work-life balance, career (retirement) planning, work experience, team building, etc.
Life aspect	Legal consultation, financial consultation, health consultation.
Free consultation channel	The service is provided by a hotline consultant, including initial interview, clarification of needs, emotional processing, issue clarification, and arrangement of individual consultants or social resources to assist, including telephone hotline, e-mail and LINE.
Personal consultation service	After an initial interview and appropriate referral to a specialized consultant, including psychological, legal, financial, psychiatric, and management issues.
Group consultation service	Mainly in response to major workplace crises, cross-team conflict management, workplace changes, and other special events or issues.
Leader one-on-one consultation service	We provide consultation services on leadership, employee management, and personal growth for the Company's managers
EAP promotion sessions	Promote the understanding and use of EAP by employees through issues such as soft emotion and stress adjustment.
EAP small cards and promotional materials	Provide all employees with small cards and post promotional materials in office moving lines to enhance the exposure and awareness of EAP.
Health Expo	Provide various kinds of physical and mental stress relief booths for employees to relax.
EAP satisfaction and demand survey	Conduct a satisfaction survey on the current year's EAP service and adjust the next year's service offerings accordingly.





To address the needs of different employees in work, life and health, and to link up the resources for EPA, TIAC held 10 seminars for all employees on a variety of topics, and also organized 2 courses in line with the Company's annual manager consensus camp to strengthen the education on workplace abuse and to implement and promote a friendly workplace.



EAP satisfaction survey

In order to provide the best work environment for all employees, TIAC conducts satisfaction survey every year as a reference and direction for continuous improvement of human resources policies and measures. In 2021, we used an online survey to ask for direct feedback from all employees regarding their satisfaction with the EAP.

According to the survey results, 104 employees responded to the questionnaire, and the overall average score of their EAP satisfaction was 5.27 (on a scale of 6). 94 employees felt that the service content provided by the EAP met their needs, with an overall average of 4.91, and 88 employees were satisfied with the service content of the EAP at the personal level, with an overall average of 4.91. In response to the survey results, the Company prioritizes the needs of the employee based on the survey results in the planning of training courses in the coming year, such as the three courses according to the 2021 employee survey, namely work stress, health and medical care, and financial issues, which were included in the 2022 training courses.



5.4 Give back to the society and contribution

TIAC is the first impression of the country, and we are constantly striving to improve and continue to showcase our diverse attractions and charms to become a service benchmark and to promote the local culture and spirit of Taiwan. During the pandemic, TTIA, the civil aviation industry, and the airport service industry were all hit hard by the pandemic, but despite this, we continued to maintain our service quality and develop new business opportunities.

During this decade, we have spared no effort in industry-academia cooperation, volunteer promotion, social welfare, and arts and cultural activities, continuing to show a positive image of our country and exerting social influence.

COVID-19 pandemic revitalization activities

TIAC has been affected by the national policy of "strict control of border risks and relaxation of domestic activities", which has led to serious losses of profits in the aviation industry and airport-related industries. As a member of the TTIA service major league, TIAC shares the hardship. Therefore, TTIA, in line with the national policy, organized a number of revitalization activities, and has even changed from defense to offense by jointly organizing one-day experience tours with the International Airport Business Development Association, hoping to attract people to spend money at the Airport and revitalize the airport economy through these activities.

Chartered flight - Jaunt

We formulated the "guidelines for short trips on chartered flights at Taoyuan Airport in response to COVID-19" and, with the approval of the authoritative units, we collaborated with airlines to conduct short trip programs. In addition to the front-end promotion, the Company also provides back-end support, including the separate routes of customs clearance for outbound passengers and passengers on chartered flights, the cleaning and disinfection of passengers after boarding, and the implementation of the separation of inbound moving lines and other pandemic prevention details. We hope that the Airport will be revitalized under the premise of aviation safety and pandemic prevention, so that the Airport is no longer just a transportation hub but also a space for entertainment and leisure, providing a new choice for national travel and bringing the highest quality service to passengers during the new life of the pandemic prevention. In 2021, there were 17 chartered flights for short trips, with 1,405 participants.

Taoyuan Airport experience tours

The tour was designed in collaboration with the International Airport Business Development Association, inviting people to visit Taiwan Taoyuan International Airport to enjoy traveling abroad and revitalize the airport economy. The package tours included themed lounge tours, ramp tours of the airside control area, fine dining in the airport lounge, duty-paid boutique sales, and viewing the sunset from the observation deck. In 2021, there were 174 such experience tours, with 4,935 participants.

Taiwan-Palau travel bubble program

The Central Epidemic Command Center (CECC) announced the official launch of the Taipei-Palau travel bubble on March 17, 2021, which aims to revitalize tourism and economic activities in both countries while taking into account pandemic prevention and safety, and to ensure the safe and smooth promotion of the travel bubble by minimizing the risk of infection and transmission.

With regard to the 5 major pandemic prevention principles and PCR screening arrangements planned by CECC, although the Company was not at the core of the planning, we are the most directly involved in the implementation and provide the most support. The "green corridor" agreed between Taiwan and Palau in this program is mainly to ensure that the participants strictly comply with the pandemic prevention regulations from the time they arrive at the terminal to the time they board the plane. For this purpose, we have planned passenger gathering areas, PCR screening spaces, screening result waiting areas, travel bubble dining areas, bubble duty free stores, bubble passenger toilets, bubble passenger entry lines, bubble passenger ride plans, etc. In addition to providing the above facilities and equipment, we also deploy security personnel to provide guidance and support. The above planning was approved by CECC and SOPs were strictly implemented. According to the statistics, nearly 6,000 passengers have participated in the program since its launch, and all of them approved of the pandemic prevention works by TTIA, and also had a pleasant travel experience.





Business revitalization campaign

TIAC invested about TWD 500,000 in the business revitalization campaign for commercial service providers. In conjunction with the Taoyuan City Government shopping festival, a discount of TWD 100 on a single purchase of TWD 500 or more at the Airport and a rebate of up to TWD 1,000 was offered in hopes that this would boost spending at the Airport and allow commercial service providers to maintain their operations to share the hardships of the times together. A total of 1,056 transactions were made during the campaign period, with a total transaction value of over TWD 3.8 million.



✈️ Industry-academia collaboration

Revitalization of cultural relics in the Aviation Science Museum

The Aviation Museum, which opened in 1981, ended its 33-year operation in 2014, leaving behind 718 valuable and educational exhibits. 12 decommissioned aircraft belonging to the military have been returned to the Air Force Headquarters and the Army Command Headquarters. In order to expand the educational function of the valuable exhibits, some of the exhibits were loaned or donated to educational institutions for use as educational displays. 92 of the exhibits were loaned to the Aviation Education Exhibit Hall of the Air Force Academy, 75 were loaned to Taipei City University of Science & Technology, and one was donated to Chaoyang University of Technology. The rest of the exhibits are kept in our warehouse for safekeeping.



Taipei City University of Science & Technology diligently planned the exhibit space



Exhibition space at the Aviation Education Exhibit Hall of the Air Force Academy

A DC-3 transport aircraft was donated to Chaoyang University of Technology in 2021 for the purpose of enriching and promoting aviation education and resource sharing, when the university requested the Company to use it as a teaching display in its aviation building. Under the concept of promoting aviation education in the former Aviation Museum, TIAC gives new life to the cultural relics for the benefit of the next generation of students and aviation fans, and further fulfills our corporate social responsibility of heritage preservation.



Volunteer Project

TIAC announced the recruitment plan for volunteers on its official website, encouraging local community enthusiasts, former retirees, and community retirees to join the social service activities to assist passengers with lost and found counter guidance, passengers with mobility impairment, passenger information and medical assistance, etc.

TIAC provides comprehensive training and care and protection for volunteers who are involved in community service. In terms of education and training, the Company arranges regular training sessions with specialized instructors from the government or private units and assists volunteers in obtaining education and training certification. In the area of care and protection, the personnel will take care of the volunteers from time to time to understand and understand and care about them if they need any assistance. Each time volunteers are on duty, they can receive subsidies for transportation and meals, participate in self-improvement activities, Lunar New Year dinner party, etc.

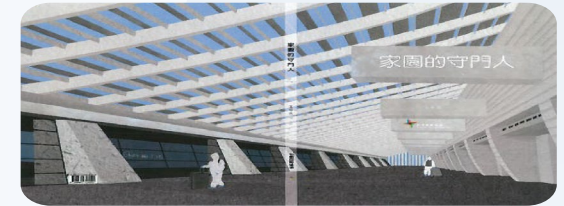
Volunteer activities have been promoted for many years, but due to the seriousness of the pandemic in 2021, volunteer duty was suspended and will be resumed when the pandemic subsides.



Social welfare and community feedback

Publication of "Gatekeepers of the Homeland", a picture book of Taiwan Taoyuan International Airport

The concept of guarding the home is the starting point for the publication of the book "Gatekeepers of the Homeland", which is a collaboration with the Maria Social Welfare Foundation, a public welfare organization, to convey the service spirit of Taiwan Taoyuan International Airport of "guarding the country and preventing the pandemic" to the outside world.



TTIA supports pineapple farmers



TIAC has taken concrete actions to support quality agricultural products by giving 120 boxes to the elderly, disadvantaged children, and community patrol volunteers in Taoyuan City, and has taken practical actions to support farmers and spread the Airport's love to all corners of society.

Visit by the Taoyuan City Council

In order to revitalize the airport business, we arranged for the Taoyuan City Council to visit the airport business facilities, led by the council speaker.





Visit by the National Defense University Chung Cheng Institute of Technology

For the smooth promotion of the construction of the airport, we received the board members of the Alumni Association of the National Defense University Chung Cheng Institute of Technology, led by the dean of the faculty, to visit and discuss the Airport's operation and future planning.



Donation box

In order to spread our love, we take advantage of our strength and set up donation boxes inside the Airport so that passengers can give their love to social welfare organizations in need. However, due to the impact of the pandemic, the benefit has been significantly reduced. The total amount donated was TWD 230,000 to six organizations (Pure Love Alliance, Youth Rights Alliance Taiwan, Good Shepherd Social Welfare Foundation, Hospice Patients Alliance, The Cerebral Palsy Association of R.O.C., and The Mustard Seed Mission).

Blood donation

In view of the shortage of blood in the blood bank due to the decrease in the willingness of the public to donate blood during the pandemic, the Company held blood donation campaigns in February, August and December, calling for the cooperation of airport workers, and collected a total of 476 bags.



Sending Love with ghost worship of the Zhongyuan Festival

Every year, TTIA prepares a lot of sumptuous offerings for the ghost worship of the Zhongyuan Festival in accordance with traditional folk customs to pray for blessings. Since 2014, the Company has been cooperating with the Department of Social Welfare of Taoyuan City Government to donate the offerings prepared for the ritual to the disadvantaged units and families in the society under the concept of the food bank, and the Department of Social Welfare of Taoyuan City Government will send personnel to collect and distribute the food and goods to the disadvantaged units in need after the ritual. The items donated from the Zhongyuan Festival ritual can be used by the food bank for about 3 months.

Computer donations



In support of the government's efforts to reduce waste of resource, protect the earth, and reduce the information gap between urban and rural areas, we donate our old computers in response to the "Your Old Computer, Their New Hope" project of the Triple-E Institute. The old computers were assembled by the Triple-E Institute and given to low-income students in rural areas or disadvantaged groups for reuse.

Application for photography at Taiwan Taoyuan International Airport

In response to the demand for photography at Taiwan Taoyuan International Airport from various agencies and the general public, we are opening up the application process for stakeholders to go to Taiwan Taoyuan International Airport for photography. A total of 107 applications were received in 2021.



Application pipeline





 **Support for arts and cultural activities**

TIAC also hopes to turn the airport into a national arts and culture venue by incorporating elements of Taiwan's folklore, festivals, industries, local ballads, and technological innovations into the design and setting up various themed waiting rooms for the overall promotion of Taiwan's arts and culture, and cooperating with the National Museum of History in the hope of supporting Taiwan's local arts and culture activities with the form of arts and the power of culture, and promoting Taiwan's local spirit and culture to the world, so that domestic and foreign passengers can experience the splendor of Taiwan's arts and culture through exposure to the Window of Taiwan and public arts space at TTIA.

Six window displays were set up in the first floor of the second terminal at TTIA, offering nonprofit arts and cultural organizations the opportunity to exhibit their works or crafts, allowing domestic and international passengers to gain a deeper understanding of Taiwan's local customs and cultural beauty.

Window of Taiwan - With Tea We Connect Special Exhibition

The Window of Taiwan is located in the arrival hall of the second terminal of TTIA, which is not only the gateway to the country, but also the window to the country. In order to promote Taiwanese culture and arts, beautify the airport environment, and enhance the national cultural image, the National Museum of History exhibited the "With Tea We Connect" special exhibition at the Window of Taiwan, allowing passengers/homecomers to have a glimpse of the famous Taiwanese tea.

In the arrival hall of Taoyuan Airport, there were family members and friends waiting for their loved ones, and even passengers with suitcases of luggage arriving in Taiwan for the first time after a long flight. Whether they are late travelers or early visitors, they are all eager for a cup of tea to soothe their tired and sleepy bodies and minds under the influence of the pandemic. This exhibition introduced the unique tea culture of Taiwan through the tea-related collections of the National Museum of History, and led visitors to further explore and construct their own tea memories. The exhibition was divided into three main themes: the scent of tea, the cultivation of tea, and Formosa Tea.



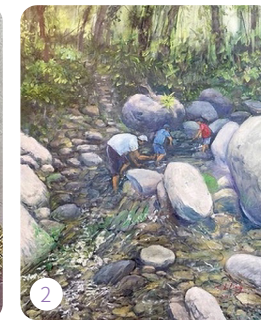
Sha Qing-Hua, Endless Life 2021, large-scale work 900x150



Wen Yu-Qin, Peaks 2019



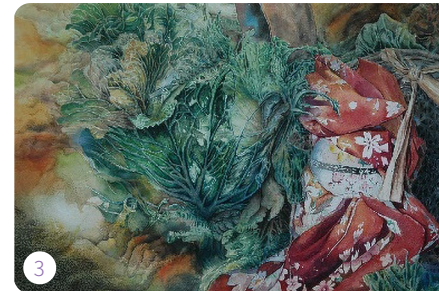
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2

1 Huang Li-Chu, Ceramic Tea Set (Landscape) 2019

2 Qiu Zhen-Ling, Summer Water Game (Nanzhuang) 2021



3



4

3 Chang Xiang, Hakka Style 2015

4 Huang Li-Chu, Ceramic Tea Set (Landscape) 2019



Appendix

Appendix I - GRI Standard Reference

Appendix II - SASB Standard

Comparison Table

Appendix III - Independent Third-party

Assurance Statement





Appendix I - GRI Standard Reference

General disclosures

Disclosure Number	Disclosure	Chapter	Page
GRI 101: Foundation 2016 (does not include any disclosures)			
GRI 102: General Disclosures 2016			
Organizational Profile			
102-1	Name of the organization	1.1 About Taiwan Taoyuan International Airport	018
102-2	Activities, brands, products, and services	1.1 About Taiwan Taoyuan International Airport	018
102-3	Location of headquarters	1.1 About Taiwan Taoyuan International Airport	018
102-4	Location of operations	1.1 About Taiwan Taoyuan International Airport	018
102-5	Ownership and legal form	1.1 About Taiwan Taoyuan International Airport	018
102-6	Markets served	1.1 About Taiwan Taoyuan International Airport	019
102-7	Scale of the organization	1.1 About Taiwan Taoyuan International Airport 5.1 Human resource	018
102-8	Information on employees and other workers	5.1 Human resource	103
102-9	Supply chain	1.5 Supplier management	036
102-10	Significant changes to the organization and its supply chain	No significant changes during the reporting period	-
102-11	Precautionary Principle or approach	2.1 Risk management	040
102-12	External initiatives	<ul style="list-style-type: none"> Signed declaration and formed safety partnership with the Occupational Safety and Health Center for Northern Taiwan, Occupational Safety and Health Administration, Ministry of Labor Signed the "T Plan for Joint Participation in Carbon Reduction" with 74 tenant companies in response to ACI's airport climate change policy to ACI's airport climate change policy 	-

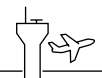
Disclosure Number	Disclosure	Chapter	Page
102-13	Membership of associations	Name of Organization	Memberships
		ACI Asia Pacific Region	Director
		Chinese Personnel Executive Association	Member
		The Institute of Internal Auditors, R.O.C.	Corporate Member
		Flight Safety Foundation Taiwan	Member
		Taiwan Intelligent Aerotropolis Association	Type A Corporate Member
		Intelligent Transportation Society of Taiwan	Type E Corporate Member
		Taoyuan Chamber of Commerce	Member
		-	-





Disclosure Number	Disclosure	Chapter	Page
Strategy			
102-14	Statement from senior decision-maker	Letter from the Chairman:	005
Ethics and Integrity			
102-16	Values, principles, standards, and norms of behavior	1.4 Safeguarding ethics and legal compliance	028
Governance			
102-18	Governance structure	1.3 Deepening governance	024 008
Stakeholder engagement			
102-40	List of stakeholder groups	Stakeholder communication and material topics of 2021	011
102-41	Collective bargaining agreements	5.3 Talent development and benefits	116
102-42	Identifying and selecting stakeholders	Stakeholder communication and material topics of 2021	011
102-43	Approach to stakeholder engagement	Stakeholder communication and material topics of 2021	011
102-44	Key topics and concerns raised	Stakeholder communication and material topics of 2021	011
Reporting Practices			
102-45	Entities included in the consolidated financial statements	1.3 Deepening governance	027
102-46	Defining report content and topic Boundaries	Stakeholder communication and material topics of 2021	014
102-47	List of material topics	Stakeholder communication and material topics of 2021	014
102-48	Restatements of information	No Restatement of Information	-

Disclosure Number	Disclosure	Chapter	Page
102-49	Changes in reporting	Stakeholder communication and material topics of 2021	014
102-50	Reporting period	About this Report	004
102-51	Date of most recent report	About this Report	004
102-52	Reporting cycle	About this Report	004
102-53	Contact point for questions regarding the report	About this Report	004
102-54	Claims of reporting in accordance with the GRI Standards	About this Report	003
102-55	GRI content index	Appendix I - GRI Standards Reference	106
102-56	External assurance	Appendix III - Independent Third-party Assurance Statement	134





Material issues

Disclosure Number	Disclosure	Chapter	Page
Material issues			
Airport safety			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Stakeholder communication and material topics of 2021	014
	103-2 The management approach and its components	Chapter 2 Sound operations and compliance with safety guidelines	039
	103-3 Evaluation of the management approach		
Self-defined issue			
Airport service quality			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Stakeholder communication and material topics of 2021	014
	103-2 The management approach and its components	Chapter 3 Active listening to create in-depth service	063
	103-3 Evaluation of the management approach		
Self-defined issue			
Information security			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Stakeholder communication and material topics of 2021	014
	103-2 The management approach and its components	Chapter 2 Sound operations and compliance with safety guidelines	039
	103-3 Evaluation of the management approach		
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Information security management	056

Disclosure Number	Disclosure	Chapter	Page
Response to climate change			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Stakeholder communication and material topics of 2021	014
	103-2 The management approach and its components	Chapter 4 Low carbon commitment with substantive sustainability acts	086
	103-3 Evaluation of the management approach		
GRI 201: Economic performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	4.2 Response to climate change	088
Risk management			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Stakeholder communication and material topics of 2021	014
	103-2 The management approach and its components	Chapter 2 Sound operations and compliance with safety guidelines	039
	103-3 Evaluation of the management approach		
Self-defined issue			
Occupational safety and health (OSH)			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Stakeholder communication and material topics of 2021	014
	103-2 The management approach and its components	Chapter 5 Friendly workplace, creating co-prosperity value	102
	103-3 Evaluation of the management approach		
GRI 403: Occupational Safety and Health 2018	403-1 Occupational health and safety management system	5.2 Safe and healthy workplace	107





Disclosure Number	Disclosure	Chapter	Page
GRI 403: Occupational Safety and Health 2018	403-2 Hazard identification, risk assessment, and incident investigation	5.2 Safe and Healthy Workplace - Workplace Hazard Management	108
	403-3 Occupational health services	5.2 Safe and healthy workplace - Employee health care	115
	403-4 Worker participation, consultation, and communication on occupational health and safety	5.2 Safe and healthy workplace	107
	403-5 Worker training on occupational health and safety	5.25.2 Safe and healthy workplace, health promotion and training	113
	403-6 Promotion of worker health	5.2 Safe and healthy workplace - Employee health care	115
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	5.2 Safe and healthy workplace - Safety and health audits and patrol inspections	111
	403-8 Workers covered by an occupational health and safety management system	5.2 Safe and healthy workplace	107

Disclosure Number	Disclosure	Chapter	Page
Indirect economic impact			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Stakeholder communication and material topics of 2021	014
	103-2 The management approach and its components	Chapter 3 Active listening to create in-depth service	063
103-3 Evaluation of the management approach			
GRI 203: Indirect economic impact 2016	Disclosure 203-1 Infrastructure investments and services supported	3.1 Service quality 3.3 Air cargo development	072 080
Corporate governance and ethical management			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Stakeholder communication and material topics of 2021	014
	103-2 The management approach and its components	Chapter 1 Deepening governance and safeguarding the spirit of ethics	017
	103-3 Evaluation of the management approach		
GRI 307: Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	No violations of any environmental laws and regulations	-
GRI 419: Socioeconomic Compliance 2016	419-1 Non-compliance with laws and regulations in the social and economic area	No violation of laws and regulations in the social and economic areas	-

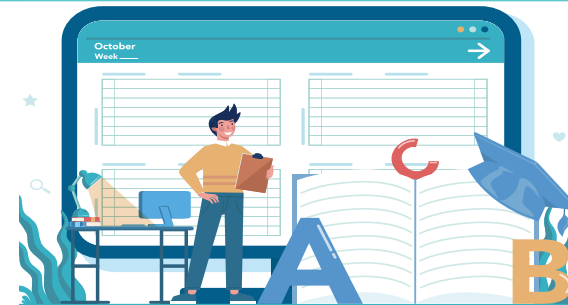




Appendix II - SASB Standard Comparison Table

Topic	Accounting metric	Category	Code	Description / Chapter	Page
Data security	Description of approach to identifying and addressing data security risks	Discussion and analysis	SV-PS-230a.1	2.1 Risk management 2.2 Airport safety management - Information security management	041 056
	Description of policies and practices relating to collection, usage, and retention of customer information	Discussion and analysis	SV-PS-230a.2	See the Taiwan Taoyuan International Airport website at https://www.taoyuan-airport.com/privacy	-
	(1) Number of data breaches, (2) percentage involving customers' confidential business information (CBI) or personally identifiable information (PII), (3) number of customers affected	Quantitative	SV-PS-230a.3	No Data Breach Occurred	-
Workforce Diversity & Engagement	Percentage of gender and racial/ethnic group representation for 1 executive management 2 all other employees	Quantitative	SV-PS-330a.1	1 Managers Male: 63% Female: 37% Indigenous people: 0% 2 All other employees Male: 70% Female: 30% Indigenous people: 1%	-
	1 Voluntary and 2 involuntary turnover rate for employees	Quantitative	SV-PS-330a.2	1 Voluntary departure rate: 2% 2 Involuntary separate rate (including retirement): 1.69%	-
	Employee engagement as a percentage	Quantitative	SV-PS-330a.3	Taiwan Taoyuan International Airport did not conduct employee engagement survey	-

Topic	Accounting metric	Category	Code	Description / Chapter	Page
Professional Integrity	Description of approach to ensuring professional integrity	Discussion and analysis	SV-PS-510a.1	1.4 Safeguarding ethics and legal compliance	028
	Total amount of monetary losses as a result of legal proceedings associated with professional integrity	Quantitative	SV-PS-510a.2	No legal proceedings related to the Code of Professional Conduct have occurred	-
Topic	Accounting metric	Code	Description / Chapter		Page
Number of employees by: 1 full-time and part-time 2 temporary, and 3 contrac	Quantitative	SV-PS-000.A	1 Full-time and part-time personnel: 653 2 Temporary personnel: 9 3 Contract personnel: 0		-
	Employee hours worked, percentage billable	Quantitative	SV-PS-000.B	Employee working hours: 1,316,128 hours Percentage of calculable time: 100% Note: Calculated based on the number of working days in 2021 (249 days) and standard working hours (8 hours)	-





Appendix III - Independent Third-party Assurance Statement



Independent Assurance Statement

Scope and Approach

Taoyuan International Airport Co., Ltd. ("TIAC" or "the Corporation") commissioned DNV Business Assurance Co., Ltd. ("DNV" or "we") to undertake independent assurance over the 2021 Sustainability Report ("the Report") for the year ended 31 December 2021.

We performed our work using DNV's assurance methodology VeriSustain™¹, which is based on our professional experience and international assurance best practices, including International Standard on Assurance Engagements 3000 (ISAE 3000) and the Global Reporting Initiative (GRI) Sustainability Reporting Standards.

The Report also incorporated the relevant sustainability reporting guidelines, such as Sustainability Accounting Standards Board (SASB) Sustainability Accounting Standard for Professional & Commercial Services.

We understand that the reported financial data and information are based on the data from TIAC's Annual Report and Accounts, which are subject to a separate independent audit process. Neither the review of financial data taken from the Annual Report and Accounts is not within the scope of our work. The disclosures including the greenhouse gas emissions, TCFD, and energy use are neither within our scope of work.

We planned and performed our work to obtain the evidence we considered necessary to provide a basis for our assurance opinion. We are providing the evaluation of reporting principles with a Moderate level of assurance, according to the DNV VeriSustain™ Protocol and Moderate level, Type 1 assurance according to AA1000 AS 33.

Responsibilities of the Directors of TIAC and of the Assurance Providers

The Directors of TIAC have sole responsibility for the preparation of the Report. In performing our assurance work, our responsibility is to the management of TIAC; however, our statement represents our independent opinion and is intended to inform all of TIAC's stakeholders. DNV was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement.

This is the first year that we have performed assurance work for TIAC, and we have no other contractual relationship with the Corporation that constitute a conflict of interest with the current assurance engagement.

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 or position an entity may make based on this Assurance Statement.

Basis of Our Opinion

A multi-disciplinary team of sustainability and assurance specialists performed work at TIAC's Taoyuan Headquarters. We undertook the following activities:

- Review of the current sustainability issues that could affect TIAC and are of interest to stakeholders.
- Review of TIAC's approach to stakeholder engagement and recent outputs.
- Review of information provided to us by TIAC on its reporting and management processes relating to the Principles.
- Interviews with selected senior managers responsible for the management of sustainability issues and review of selected evidence to support the issues discussed.
- Site visits to the TIAC's Taoyuan Headquarters to review processes and systems for preparing site-level sustainability data and the implementation of sustainability strategies.
- Review of supporting evidence for key claims and 2021 data in the Report, as reported information beyond 2021 is not within the scope of the current engagement. Our checking processes were prioritised according to materiality, and we based our prioritisation on the materiality of issues at the consolidated corporate level.
- Review of the processes for gathering and consolidating the specified performance data and, for a sample, checking the data consolidation, as we did not substantially verify specified performance data under this Type 1 assurance engagement. Where financial data had been checked by another third party, we tested the transposition from these sources to the Report.
- An independent assessment of TIAC's reporting against the Core option of Global Reporting Initiative (GRI) Sustainability Reporting Standards.
- The verification was conducted based only on the Chinese version Report.

¹ The VeriSustain™ Protocol is available on dnv.com



Opinion

On the basis of the work undertaken, nothing came to our attention to suggest that the Report does not properly describe TIAC's adherence to the Principles. In terms of reliability of the performance data, in accordance with Moderate level assurance requirements, nothing came to our attention to suggest that these data have not been properly collated from the information reported at the operational level, nor that the assumptions used were inappropriate.

Observations

Without affecting our assurance opinion, we also provide the following observations.

- It is suggested that the management approaches consider the changing materiality for the continual and attentive advancement of stakeholder engagement, with the Corporation's sustainability strategies' distinctive features and the associated impacts assessed and presented to generate maximum stakeholders' value.
- By demonstrating the performance of the current reporting period and at least two previous periods and promoting continual advancement of data collection and management for the more systematic and consistent presentation of multi-year performance information, the Corporation can allow stakeholders to better see positive and negative trends in performance on a year-to-year basis.

Stakeholder Inclusiveness

The Corporation 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 significant sustainability issues identified through this process are reflected in the Report.

Sustainability Context

The Report provides an accurate and fair representation of the level of implementation of related corporate sustainability policies and meets the content requirements of the GRI Standards.

Materiality

The process developed internally has not missed out any significant, known material issues, and these issues are fairly covered in the Report. A methodology has been developed to evaluate the priority of these issues.

Completeness

The Report covers performance data against the GRI Standards core indicators that are material within the Corporation's reporting boundary. The information in the Report includes the Corporation's most significant initiatives or events that occurred in the reporting period.

Accuracy and Reliability

The Corporation has developed the data flow for capturing and reporting its sustainability performance. In accordance with Moderate level assurance requirements, we conclude that no systematic errors were detected which causes us to believe that the specified sustainability data and information presented in the Report are not reliable.

Impact

The Corporation presents the impacts related to its identified material topics by measuring and monitoring impacts through appropriate performance metrics demonstrating outcomes and outputs of its value creation processes. Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Impact.

For and on behalf of DNV Taiwan

Date: 25 July, 2022

Yu Chung Chen
Lead Verifier
Business Assurance
DNV Taiwan
Statement Number: CS49447-2021-CSR-TWN-DNV

David Hsieh
District Manager,
Business Assurance
DNV Taiwan





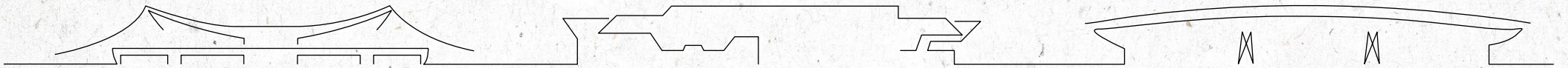
Environmental



Social



Governance



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