

AIRPORT AUTHORITY HONG KONG

Sustainability Report 2020/21





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Chairman's Message

“Our Airport City vision will strengthen the competitiveness of HKIA, and help propel the economy of Hong Kong and the Greater Bay Area.”



Dear Stakeholders,

The year 2020/21 marked another challenging year for Hong Kong International Airport (HKIA). Despite this challenging time, the airport community demonstrated exceptional commitment and professionalism in maintaining smooth operation of HKIA, enforcing the health and quarantine measures imposed by the Hong Kong Government, and making good progress in building HKIA into an Airport City.

Central to Airport City is the Three-Runway System (3RS) Project. In September 2021, we celebrated the completion of the pavement works for the Third Runway, a major milestone of the 3RS Project. I am fully confident that the project will be completed on time and within budget by 2024. Upon the commissioning of the 3RS, HKIA will be

able to handle annual passenger and cargo volumes of around 120 million and 10 million tonnes respectively, enabling Hong Kong to enhance its status as an international aviation hub in accordance with the National 14th Five-Year Plan.

Another key element of Airport City is SKYCITY, one of the largest commercial developments in Hong Kong with a wide array of retail, dining and entertainment facilities, hotels and offices. The Regala Skycity Hotel will be completed by the end of 2021, to be followed by 11 SKIES in phases from 2022 onwards. Together with the new phase of development of AsiaWorld-Expo, SKYCITY will be a new landmark for both visitors and local residents. Meanwhile, we have a number of infrastructure projects linking SKYCITY to the Hong Kong Boundary Crossing Facilities Island to fully capture the market potential of the Greater Bay Area. On air cargo, we are developing a premium logistics centre and logistics park in Dongguan to strengthen our leadership in air cargo. The Airport City vision will strengthen the competitiveness of HKIA, and help propel the economy of Hong Kong and the Greater Bay Area.

On the environmental front, we have completed two important strategic studies including the Climate Resilience Study to review and strengthen HKIA's operational resilience and adaptive capacity to a changing climate, and the Long-term Carbon Target Study which was concluded with a new airport-wide target of achieving Net Zero Carbon by 2050, not only aligning with the industry net

zero carbon goal and the Government's 2050 carbon neutrality target, but also making HKIA a leading airport in carbon management. We will continue to work closely with our business partners to accelerate the transition of HKIA to a low-carbon and climate-resilient airport.

In 2020/21, we continued to invest in the airport community and its workforce. We have rolled out the Airport Training Allowance Programme to support airport staff on unpaid leave during the pandemic. Hong Kong International Aviation Academy (HKIAA) has further expanded its curricula, offering training to aviation talent in Hong Kong and around the Asia Pacific region. A new HKIA Community Building will open in 2022 to provide additional recreational and dining facilities for airport staff, an expanded campus for HKIAA and a second Airport Preschool.

Looking ahead, we must stay resilient against the COVID-19 and focused on the Airport City development. I look forward to welcoming passengers back to HKIA with a fresh look and brand new airport experience.

Jack So Chak-kwong

Chairman

Hong Kong, September 2021

CEO's Message

“Sustainability is at the centre of our recovery plan and long-term development vision. We aim to make HKIA a more sustainable airport.”



Dear Stakeholders,

The operation of Hong Kong International Airport (HKIA) was significantly impacted by COVID-19 in 2020/21.

Air traffic and passenger numbers dropped significantly, but air cargo throughput remained resilient. Since the outbreak of pandemic in early 2020, we have spared no effort in safeguarding the health and safety of passengers, airport staff and other airport users.

In 2020/21, we stepped up cleaning and disinfection efforts on airport facilities and passenger amenities, and further applied cutting-edge technologies to create a touchless, smarter and seamless airport experience. These included the introduction of e-Boarding Gates and extension of the use of e-Security Gates to streamline the verification of

passengers' identity and at the same time reduce physical interaction between airport staff and travellers. Our efforts in maintaining high standards of health and safety in airport operations have made us among the first airports in the region that received the accreditation from the Airports Council International's Airport Health Accreditation programme. Meanwhile, we have set up a commercial COVID-19 testing service at HKIA and successfully conducted a trial of digital health pass to facilitate passengers to travel under the new normal as a result of COVID-19.

In view of the increasing expectations on a sustainable recovery that is not at the expense of the society and natural environment, we have implemented various measures to reinforce our sustainability commitments. For instance, we have formed a new Sustainability Executive Taskforce, chaired by myself and attended by all Executive Directors, to drive and oversee the progress of key sustainability initiatives and programmes, including the progress towards achieving Net Zero Carbon by 2050. In addition, we have launched an airport-wide Green Airport Design and Construction Strategy to expand our green design commitment to cover other development projects at HKIA. To better reflect our efforts in increasing the capability to capture recyclables, we have set a new waste target of increasing the recyclables recovery rate by 25% by 2025 compared to a 2018 baseline. We will continue to work closely with our business partners and other stakeholders to reduce HKIA's environmental footprint.

Despite the current challenges and business uncertainties, maintaining a professional team remains crucial to HKIA's operation and long-term development. In 2020/21, we completed a 12-month Leadership Development Programme for middle managers to expand our leadership talent pool to take up future senior management positions. We also launched a new online learning management system, myLearning, which enables our employees to attend a wide selection of online courses anywhere and anytime. In addition, we organised the second AA Wellness Weeks to reiterate the importance of striking a healthy work-life balance while encouraging our employees to adopt an active lifestyle.

Sustainability is at the centre of our recovery plan and long-term development vision. This report sets out the work we have done in the past year and our future plans for sustainability. I invite you to read this report and work with us to make HKIA a more sustainable airport.

Fred Lam

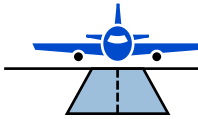
Chief Executive Officer

Hong Kong, September 2021

2020/21 Highlights

Airport City

Completion of
Third Runway Pavement



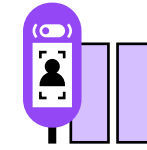
>70 million
doses of **vaccines** handled

'Park and Fly' and 'Park and Visit'
automated car parks



World-class Gateway

e-Boarding Gates
at 25 departure gates in T1



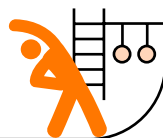
Launch of the **5G service**

**Temporary Specimen
Collection Centre** set up at T1M

>400 households visited by
EXTRA MILE participants

New **Professional Diploma
in Aviation Management**

Revamped Airport Trail



Community

Net Zero Carbon
by 2050



Align disclosures with
TCFD Recommendations

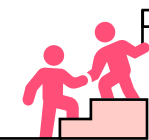


Increase **recyclables recovery rate**
by **25%** by 2025

Greenest Airport

>1,700 participants
for virtual **Wellness Weeks**

Revamped Intranet



**Leadership Development
Programme** for middle managers

Our People

About this Report

This is Airport Authority Hong Kong (AAHK)'s ninth annual sustainability report covering the fiscal year 2020/21 ended 31 March 2021. This report provides a comprehensive account of AAHK's management approach and sustainability performance in five key focus areas: [Airport City](#), [World-class Gateway](#), [Greenest Airport](#), [Community](#) and [Our People](#). It also focuses on the sustainability issues that are identified as the most important to AAHK's business and its stakeholders in the materiality assessment process. This report has been reviewed by AAHK's senior management, including the Chief Executive Officer (CEO).

Reporting Scope and Data

The report aims to explain how AAHK addresses sustainability issues and improves Hong Kong International Airport (HKIA)'s overall sustainability performance – for example, through engagement with its stakeholders and collaboration with airport business partners. It mainly covers AAHK's core business in the operation and development of HKIA. Reference is also made to AAHK's subsidiaries and outsourced operations where relevant. We will consider including more data and information from our subsidiaries in future reports. It does not include information on AAHK's subsidiary and joint ventures in Mainland China. Information about our subsidiaries and joint ventures in Hong Kong and Mainland China can be found in our [Annual Report 2020/21](#).

The [performance data](#), including economic, operational, workplace and social, presented in this report covers the fiscal year 2020/21, unless otherwise stated. Environmental data is reported for the calendar year ended 31 December 2020. Where available, data for previous years has been included to facilitate comparison and analysis. AAHK's financial data used in this report was extracted from its audited consolidated financial statements for the year ended 31 March 2021. Other data is provided in accordance with the Global Reporting Initiative (GRI)'s GRI Standards and the Airport Operators Sector Disclosure requirements or Hong Kong Exchanges and Clearing Limited Environmental, Social and Governance Reporting Guide (HKEX ESG Guide) unless otherwise stated. Information on the standards, methodologies, assumptions or calculation tools used and sources of conversion factors for compiling the data are given throughout the report where appropriate. Any restatements or changes of the methods, past data, definition or calculation of data are stated in the report.

Reporting Frameworks and Assurance

This report has been prepared in accordance with the GRI Standards: Core option and the GRI G4 Airport Operators Sector Disclosures. We have also voluntarily disclosed in compliance with the HKEX ESG Guide. A [HKEX ESG Guide Content Index](#) and a [GRI Content Index](#) at the end of this report list out the information reported against the recommended disclosures of the abovementioned reporting guidelines.


We also take reference of the recommendations by the Task Force on Climate-related Financial Disclosures (TCFD) for our climate-related disclosures.


This report has been independently verified by the Hong Kong Quality Assurance Agency. Details of the verification can be found in the [Verification Statement](#). Separately, AAHK's greenhouse gas (GHG) emissions data including Scope 1, Scope 2 and selected Scope 3 emissions, as disclosed in this report, has been independently verified by SGS Hong Kong Limited.




Your Feedback

We welcome your feedback on AAHK's sustainability management approach and performance. Please fill in the [feedback form](#) or provide your feedback via:

 corporatesustainability@hkairport.com

 +852 2188 7111

 Sustainability Department
Airport Authority Hong Kong
HKIA Tower, 1 Sky Plaza Road
Hong Kong International Airport
Lantau, Hong Kong

About Airport Authority Hong Kong

Established in 1995, AAHK is a statutory body wholly-owned by the Government of the Hong Kong Special Administrative Region (HKSAR Government or the Government) and governed by the Airport Authority Ordinance (AA Ordinance) ([Chapter 483, The Laws of Hong Kong](#)). Guided by the AA Ordinance and the objective of maintaining Hong Kong's status as a centre of international and regional aviation, AAHK is responsible for the provision, operation, development and maintenance of HKIA. AAHK is required to conduct its business according to prudent commercial principles and with due regard for the safe and efficient movement of aircraft, passengers and cargo.

AAHK at a Glance (Fiscal Year 2020/21)

Location of headquarter	Hong Kong
Vision	To strengthen HKIA as the leading international aviation hub and a key engine for the economic growth of Hong Kong
Number of employees (excludes subsidiaries)	2,870 (as of 31 March 2021)
Revenue	HK\$5,936 million*
Location of operations	Besides Hong Kong, AAHK is involved in the operation and management of three airports in Mainland China via joint ventures and a subsidiary: Shanghai Hongqiao International Airport, Hangzhou Xiaoshan International Airport and Zhuhai Airport
HKIA key facts and performance	<ul style="list-style-type: none"> • Airport site area: 1,255 hectares • Terminal building area: ~730,000 square metres • Served around 110 airlines • Connected to around 145 destinations worldwide • Handled 4.6 million tonnes of cargo • Handled 128,000 aircraft movements* • Hosted 0.8 million passengers*
Memberships and external initiatives	• Details are set out in Memberships and External Initiatives

Core activities	<ul style="list-style-type: none"> • Provision, operation, development and maintenance of HKIA, including managing its subsidiaries, contractors, and airport business partners to provide passenger services, cargo and aviation services, apron management, airfield operations, airport property and facilities management, airport safety and security, retail and advertising, and other terminal commercial activities • Provision of facilities, amenities and services at, as regards or in relation to HKIA • Engagement in airport-related activities in trade, commerce or industry on the airport island, and other airport-related activities as permitted by the Airport Authority (Permitted Airport-related Activities) Order (Cap.483E)
Key subsidiaries	<ul style="list-style-type: none"> • Aviation Security Company Limited – Provision of aviation security services • HKIA Services Holding Limited – Overseeing three member companies: <ul style="list-style-type: none"> ◦ Hong Kong International Aviation Academy – Provision of aviation-related educational programmes and training ◦ AsiaWorld-Expo – Operation and management of AsiaWorld-Expo exhibition centre ◦ HKIA Consultancy – Provision of aviation-related professional consultancy services to other airports in the region • HKIA Precious Metals Depository Limited – Provision of storage space and related services • Hong Kong-Zhuhai Airport Management Co., Ltd – Airport management and provision of transportation and ground services relating to aviation

* Performance was heavily impacted by COVID-19

Economic Performance and Financial Sustainability

Passenger traffic was almost at a standstill since early 2020, as quarantine measures, travel bans and restrictions were introduced in major destinations and in Hong Kong. Following the drop in passenger volume and flight movements, AAHK's total revenue recorded a drop of 65.3%, to HK\$5,936 million, largely because of a fall in airport and security charges as well as lower revenue from retail licences, airside support services franchises and terminal leasing in 2020/21. The prolonged impact brought about by the COVID-19 pandemic has also significantly impacted businesses operating at HKIA. In response to the unprecedented challenges facing Hong Kong's aviation industry, AAHK introduced several rounds of relief measures amounting to HK\$4,662 million in 2020/21 to support the airport community. Details of the relief measures are included in the [Community](#) section.

In view of the business challenges and uncertain economic outlook, AAHK continues to exercise stringent financial discipline and implements different measures to control its operating expenses, such as temporary closing of passenger facilities to reduce repair and maintenance costs. We have also re-phased development projects to rationalise our capital expenditures, helping us to maintain a healthy cash flow and financial position. In addition, AAHK has raised external funds to further strengthen its financial capacity and sustainability.

Despite the challenging financial situation, our financial position remains strong, and we maintained our credit rating of AA+ from Standard & Poor's in 2020/21. Leveraging on our strong credit rating and to capture the liquidity in the market, we signed HK\$35 billion five-year syndicated bank facilities with local and international banks, issued US\$3 billion in perpetual capital securities and dual-tranche senior notes, and HK\$8.2 billion in institutional bonds. The proceeds from these issuances will be used for general corporate purposes and to fund AAHK's capital expenditure, including the capital expenditure of the Three-Runway System (3RS) Project. The overwhelmingly positive

response from the global financial community and investors demonstrates the market's confidence in AAHK and HKIA's business recovery and future growth when the pandemic subsides.

In response to the increasing market demand to finance projects that deliver positive environmental and social outcomes, AAHK will consider to issue USD institutional bonds in green or sustainable format under the sustainable finance framework in the future. This also supports the HKSAR Government's policy to develop Hong Kong as an international green and sustainable finance hub in the region.

Economic performance* in 2020/21



* Economic performance covers the direct economic value generated and distributed from AAHK as defined in GRI 201-1. 'Economic value retained' is derived by subtracting 'Economic value distribution' from 'Economic value generated'.



Case Study:

First Hong Kong Corporate Syndicated Loan Compliant with the Equator Principles

In June 2020, AAHK signed five-year HK\$35 billion loan facilities with 21 local and international banks. It was the first corporate syndicated loan in Hong Kong that is compliant with the Equator Principles (EPs). The facilities were widely recognised by the financial community and received a number of accolades, including:

- Best Investment Grade Syndicated Loan in the GlobalCapital Asia Awards 2020
- Best Syndicated Loan in The Asset Triple A Sustainable Capital Markets Regional Awards 2020
- Airport Deal of the Year – Global and Airport Deal of the Year – Hong Kong in The Asset Triple A Infrastructure Awards 2021.

First launched in 2003, the EPs provide a global risk management framework to assist financial institutions in determining, assessing and managing environmental and social risks associated with large-scale development projects. The EPs are a set of voluntary guidelines that provide a checking framework for ensuring that large-scale construction projects have adequately and appropriately considered potential impacts on the natural environment and on affected communities, including risks and impacts on workers.

AAHK has undertaken a comprehensive review of the 3RS Project's compliance against the EPs. The results confirmed that AAHK had strong capacity to manage the full range of environmental and social risks associated with the 3RS Project, with a robust construction phase environmental monitoring and audit system developed and in place along

with systematic controls to ensure environmental and social compliance across the project. The assessment also identified multiple environmental stewardship initiatives over and above regulatory requirements.

As a result of the assessment, AAHK has established and implemented an Equator Principles Action Plan (EPAP), which specifically stipulates the actions needed to fill in the minor gaps identified relating to topics or aspects beyond the scope of Hong Kong regulations and standards, such as a need to better quantify and address increased GHG emissions associated with the airport expansion and to ensure alignment with recognised international standards on social and human rights applicable to labour and working conditions. AAHK will also report to lenders on project progress and on compliance with the EPAP every six months.



Economic Contribution of AAHK and HKIA

Since early 2020, the COVID-19 pandemic has had a serious impact on the operations and businesses at HKIA. The reduction in air travel demand has affected the airlines, ground handling services such as aircraft catering and maintenance, and the entire aviation value chain. Despite the temporary setback, AAHK continues developing HKIA into an Airport City – a 10-year blueprint that entails an investment of over HK\$40 billion which aims at enhancing HKIA's capacity and functionality. The Airport City

development will strengthen HKIA as an international aviation hub and drive the economic growth of Hong Kong and the region in the long run. Details of the Airport City development are included in the [Airport City](#) section.

We make reference to several indicators to benchmark HKIA's economic contribution, including our payments made to local suppliers and contractors for daily operation and on development projects.

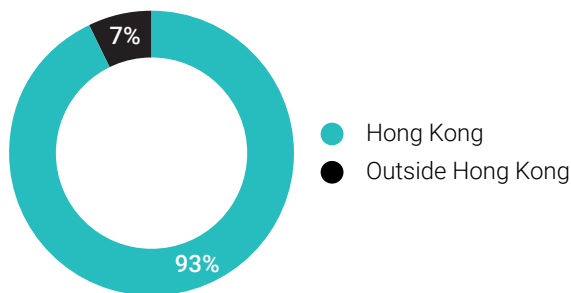
Procurement for daily operation in 2020/21

**Total Value of Procurement
HK\$4.7 billion**

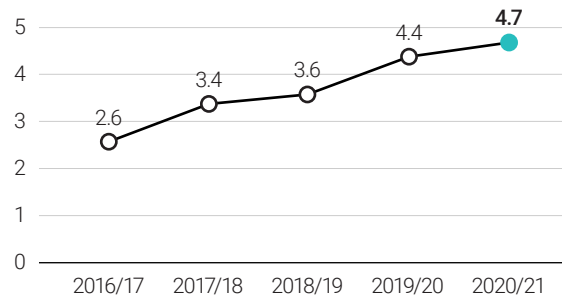
Number of suppliers by geographical region



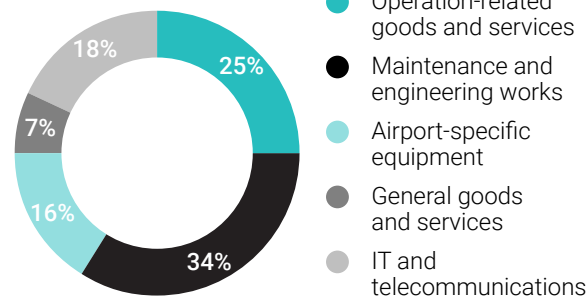
Spend profile by geographical location of suppliers



Total procurement value (HK\$ billion)



Spend profile by type



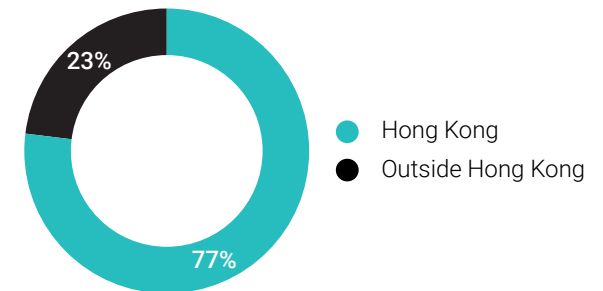
Procurement for development projects in 2020/21

**Total Value of Contracts Awarded
HK\$62.8 billion**

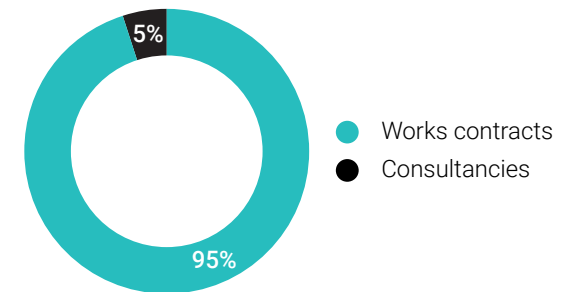
Number of suppliers* by geographical region



Spend profile by geographical location of suppliers



Spend profile by type



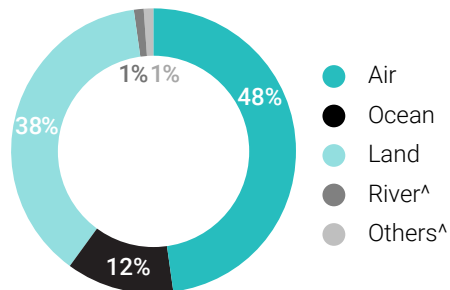
* This figure includes only the number of suppliers involved in the development projects for the 3RS Project. We will consider including the number of suppliers involved in non-3RS development projects in future reports.

Although HKIA recorded a significant drop in passenger traffic and aircraft movements owing to global pandemic-related travel restrictions and border closures to prevent the spread of disease, air cargo operations remained resilient. Air cargo is key in supporting the operation of international trade. While the volume of trade transported by air is small, the value of trade in goods is high as airfreight is mostly used to deliver high-value goods. Since 2016/17, AAHK has been developing its cargo strategy in three key areas, including cross-boundary e-commerce, high-value cargo

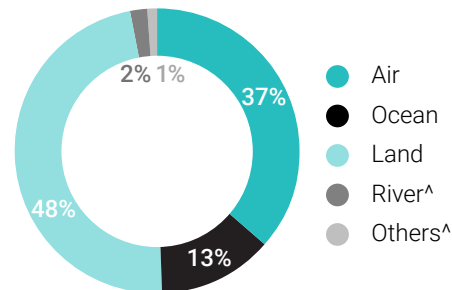
such as transportation of temperature-controlled goods, and transshipment. Investments in cargo facilities, such as expansion of express air cargo terminal, premium logistics centre and cold-chain facilities over the past few years, have enabled HKIA to meet the immense transport demand for e-commerce, vaccines and medical products during the pandemic. In 2020, HKIA handled over 40% of Hong Kong's total external trade value and maintained its position as the world's busiest international cargo airport.

Supporting external trade (2020 data)*

External merchandise trade value – Import



External merchandise trade value – Total export



* Source: 2019 data, Hong Kong's External Merchandise Trade Statistics, Census and Statistics Department, HKSAR Government

[^] 'River' refers to transport by vessels in waters in the vicinity of Hong Kong, the Pearl River and other inland waterways in Guangdong Province and Guangxi Autonomous Region, which are accessible from waters in the vicinity of Hong Kong. 'Others' include trade by hand-carried and parcel post.



Our Approach to Sustainability

Sustainability Vision, Governance and Management Approach

Our Sustainability Vision



AAHK's sustainability vision is to strengthen HKIA's capability to operate and grow profitably in a changing and challenging economic, ecological, technological and social environment, while developing a robust culture of sustainability throughout the organisation.



Sustainability Governance

We are firmly committed to maintaining high standards of corporate governance. A sound and effective governance framework helps ensure that we can meet the needs of our key stakeholders while attaining long-term sustainable growth.

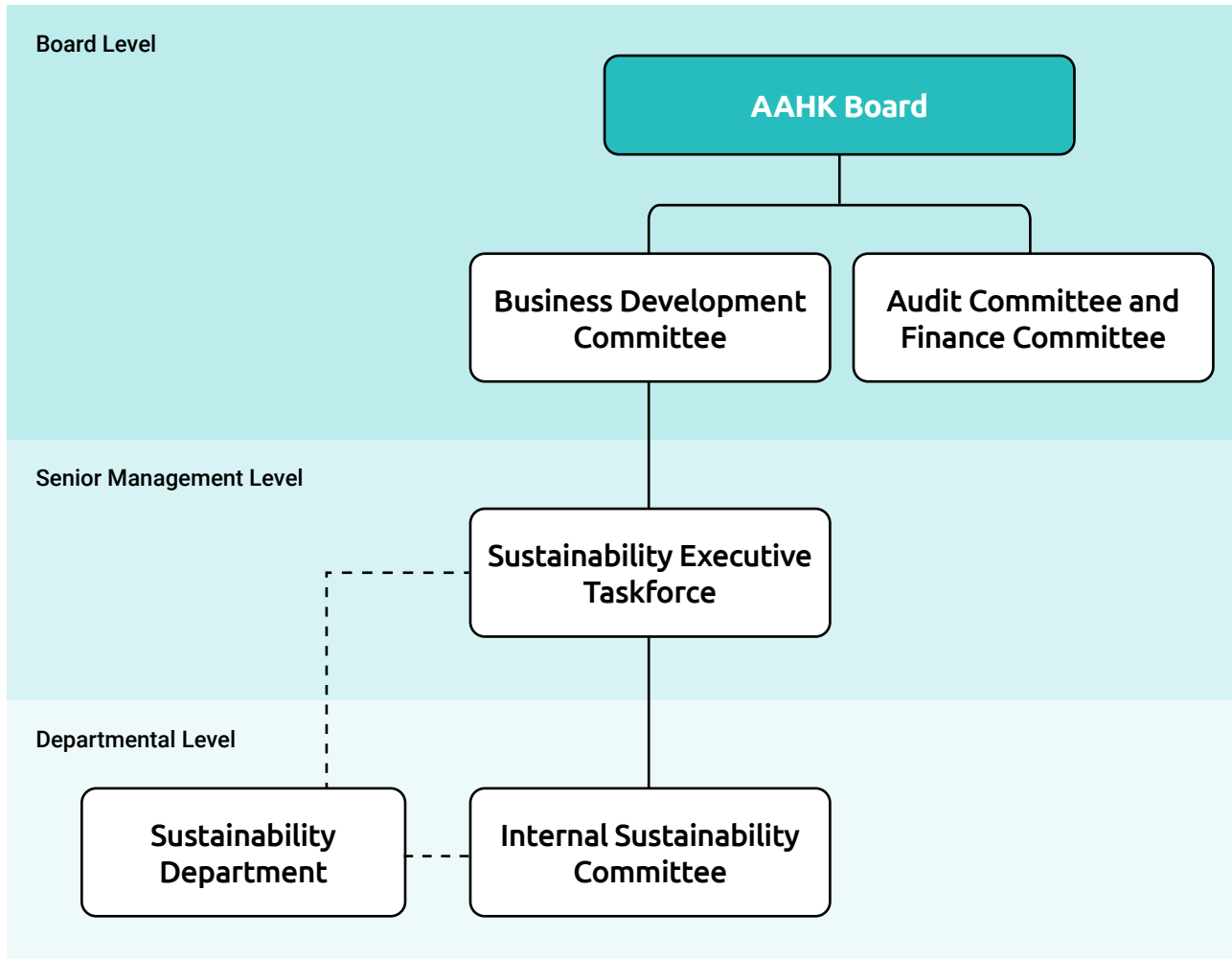
The Board has the responsibility for the leadership, performance and control of AAHK, and four Board Committees have been established to advise the Board and decide on matters within their ambits. The four Board Committees are the Audit Committee and Finance

Committee (ACFC), Business Development Committee (BDC), Human Resources & Remuneration Committee (HRRC), and 3RS & Works Committee (3RSWC). Details of our corporate governance framework and practices are available in the [Corporate Governance](#) section of our Annual Report 2020/21.

Sustainability is managed at various levels within AAHK. This ensures sustainability is effectively integrated into our operations and medium to long-term planning, and instilled throughout the organisation.



Sustainability Governance Structure



As stated in its [Terms of Reference](#), the BDC is tasked to assist the Board in looking after AAHK's sustainability strategy, which includes considering and approving or making recommendations to the Board.

AAHK's Sustainability Department is responsible for developing corporate-wide and airport-wide sustainability strategy, management and reporting systems. Led by the General Manager, Sustainability, the Sustainability Department is under the Third Runway Division (TRD) and aims to embed sustainability into HKIA's existing and future operations, especially in the development of the 3RS.

Over the year, we have implemented various measures to strengthen AAHK's sustainability governance and to enhance the communication with the Board and BDC on AAHK's sustainability strategies and performance. These include the establishment of a senior management Sustainability Executive Taskforce, chaired by CEO with Executive Directors as members. The taskforce is responsible for driving and overseeing the progress of key sustainability initiatives and programmes. An Internal Sustainability Committee was also established at the general managers' level. Both the Sustainability Executive Taskforce and the Internal Sustainability Committee are supported by the Sustainability Department. Moreover, we have begun to provide a regular update on sustainability issues relating to the operation and development of HKIA to the BDC. The first update was made in May 2021.

Sustainability-related Risk Management

The operation of AAHK encompasses a diverse range of risks. We have therefore set up a comprehensive risk management framework to assess, review and address risks across the organisation. All departments are required to implement a thorough risk identification process to review the risk and business continuity management processes pertaining to areas that are critical to the sustainable operation of AAHK and HKIA. Key elements of AAHK's risk identification process include the establishment of an Operational Risks Register to track and document identified risks, and the development and continual updating of preventive and responsive procedures. The identified risks are subsequently categorised into strategic & operational, environmental, safety, security & health, financial, information technology, legal & regulatory, human resources, and reputational risks. Identified risks that have potential impact on our operations will then be escalated to AAHK's senior management. To recognise emerging risks from economic, market or environmental changes, senior management would base on on-going risk assessments to inform the BDC and where relevant, the Board and seek support for the mitigation measures.

For instance, in view of the emerging impacts of climate change to the operation of HKIA, we commenced a Climate Resilience Study in February 2020 to review and update HKIA's operational resilience and adaptive capacity to a changing climate. The Study includes a physical deep dive assessment to identify and prioritise climate risks relating to HKIA's key assets and operations, and a transition risk analysis to examine how AAHK may be impacted by policy and market changes brought on by a transition to a low-carbon economy. Details of the identified climate-related physical and transition risks are available in the [Greenest Airport](#) section.

At the Board level, the ACFC is tasked to assist the Board in reviewing AAHK's risk management system and ensuring that effective controls are in place. The ACFC also receives reports from both external and internal auditors and considers any control issues arising from these reports. It also reviews all risk areas, including any sustainability issues and risks that are material to AAHK, and identifies key issues that would require its further attention and, if appropriate, the Board's focus. Key risks identified in 2020/21 and respective controls are detailed in the [Risk Management](#) section of our Annual Report 2020/21.

Sustainability Management Approach

AAHK is responsible for the operation and development of HKIA. The delivery of the majority of services related to the airport's operational functions is outsourced to business partners, including franchisees, licensees and tenants. In view of that, we adopt a three-pronged approach to the overall sustainability management of HKIA, 'control, guide and influence', which reflects the different levels of control we exercise over the various aspects of airport operation.

These include setting out our expectations on environmental and social issues to our suppliers and contractors, and managing their impacts by including various clauses, terms and conditions, and project statements relevant to the nature of the contracts and services or products procured. For example, environmental clauses are embedded in and form part of AAHK's contract with its suppliers and contractors. These environmental clauses specify AAHK's requirements on environmental management, including compliance with relevant environmental laws and regulations, and submission of an environmental management plan which sets out the intended approach and measures the contractors or suppliers will undertake to manage their environmental impacts. In addition, an airport-wide third-party monitoring programme has been implemented to monitor the environmental performance of AAHK's business partners and contractors. For social issues, we also include specific terms and clauses, such as those related to health & safety and working conditions, in particular those service-related contracts. Where relevant, contractors are required to submit a safety management plan with details of the health and safety measures to be implemented, which are subject to AAHK's safety inspections.



Corporate Compliance

Ethical Culture

We require all employees to maintain the highest level of ethics and integrity in conducting the affairs of AAHK. AAHK's Code of Conduct clearly sets out the standard of behaviour expected of all employees, including the requirement to comply with relevant laws and regulations such as those relating to personal data, privacy and intellectual property rights. Other issues covered are AAHK's policies on handling conflicts of interest, avoiding solicitation and acceptance of advantages, and safeguarding AAHK's property, information and records.

The Code of Conduct forms part of the contract of employment between AAHK and its employees. All employees, including CEO and all Executive Directors, are expected to understand and comply with it. As such, every new employee is required to participate in training on the Code in their first month of employment. Employees are also required to complete an annual refresher course and pass a test. To inculcate an ethical mindset among employees and to enhance their awareness of desirable ethical behaviour, we regularly invite organisations such as the Independent Commission Against Corruption (ICAC) and the Equal Opportunities Commission, to hold workshops and sharing sessions with case studies.

Whistle-blowing Policy

We have a whistle-blowing policy in place to guide and encourage employees to raise serious concerns internally, without fear of reprisal, in a responsible manner. Any employee who is aware of an act of an impropriety, such as but not limited to a breach of laws and regulatory requirements, unethical behaviour, and a violation of AAHK's Code of Conduct, may report directly to the Chief Internal Auditor following the procedures set in the policy for investigation, without any risk of retribution. The whistle-blowing policy is posted on AAHK's intranet.

The policy is reviewed periodically by AAHK's senior management or the ACFC, which has the responsibility to ensure that proper arrangements are in place for the fair and independent investigation of concerns raised and for appropriate follow-up action in accordance with the policy.

Compliance Training for New Employees

Category	Training/Topic	Timeline
General Mindset & Behaviour (Mandatory)	<ul style="list-style-type: none"> Code of Conduct Information Classification & Handling in HKIA Staff Information Security 	Within a month
Legal Compliance (Mandatory)	<ul style="list-style-type: none"> Briefing on Equal Opportunities Seminar on data privacy ICAC briefing: General awareness ICAC briefing: Misconduct in public office 	Within a month
Procedures and Practices (By nomination)	<ul style="list-style-type: none"> Internal audit workshop Finance policies workshop Information technology policies workshop Procurement policies workshop Overseas business travel workshop 	Within six months

Policies and Compliance

We have set up a proactive and forward-looking approach to monitor changes in government policy and legislation. Various policies and procedures have been established, reviewed and updated regularly to address these changes in a timely way. Our internal control systems are also in place to help ensure our business and operations are conducted in compliance with relevant laws and regulations, as well as prudent commercial principles as stipulated in the AA Ordinance. We have established a series of sustainability-related policies to provide guidance and strategic direction to the sustainable operation and development of AAHK.

During the reporting period, there were no convicted cases related to non-compliance with laws and regulations relating to bribery, extortion, fraud and money laundering, nor concluded cases regarding corrupt practices brought against AAHK or its employees. There were also no significant cases of non-compliance with laws and regulations in relation to environmental and social aspects.

Aspects	Governance	Environmental	Social
Policies	<ul style="list-style-type: none"> • Code of Conduct • Grievance Handling Policy • Information Security Policy and Standards • Privacy Policy • Whistle-blowing Policy 	<ul style="list-style-type: none"> • Corporate Environmental Policy Statement • Energy Policy • Green IT Policy, Strategy and Standards • Green Procurement Policy • Sustainable Dining Policy 	<ul style="list-style-type: none"> • Corporate Safety Policy Statement • Human Resources Policies and Procedures



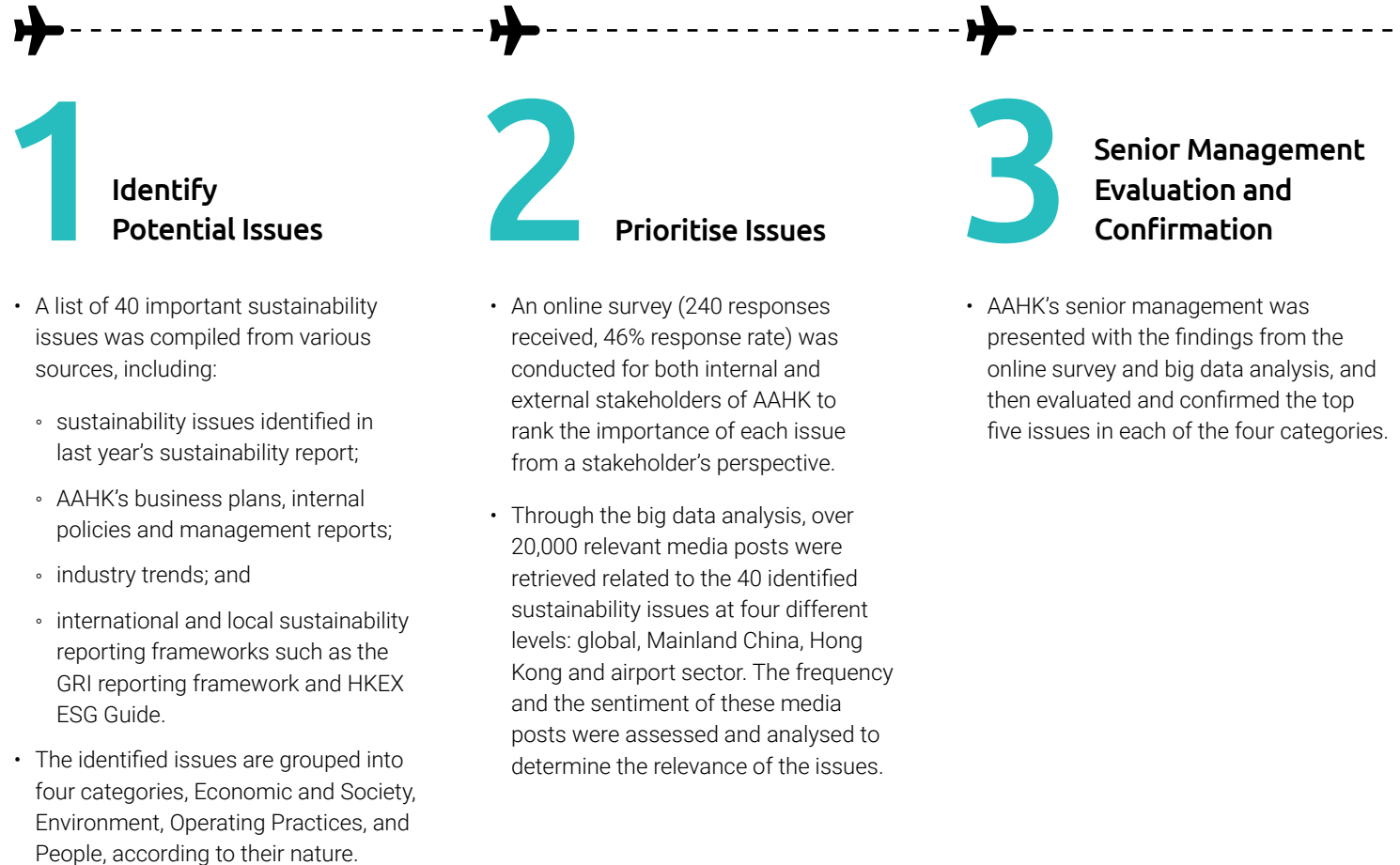
Major Updates in 2020/21

- AAHK's Code of Conduct was updated in January 2021 with major changes relating to anti-discrimination to provide a broader scope of protection for employees against discrimination and harassment in the workplace. Policies on Equal Opportunities (formerly named Equal Employment Opportunities) and Elimination of Workplace Harassment (formerly named Elimination of Sexual Harassment) were updated accordingly.
- The policies on maternity leave, paternity leave and sick leave were updated in December 2020 to align with the latest legislative requirements following the implementation of the Employment (Amendment) Ordinance 2020.

Materiality Assessment

After completing a review of our materiality assessment process in 2019/20, we redesigned the methodology and included a big data analysis in the process for the first time. Using an analytic tool powered by machine-learning algorithms, we investigated the broader public perceptions on key sustainability issues within our industry and across different regions. The results of the analysis provide us with data-driven insights into key trends and discussion topics shaping the global conversation, which helps us to determine the priority of issues at the final stage of the process.



Materiality Assessment Process



Most Important Sustainability Issues to AAHK and the Relevant Disclosures in Sustainability Report 2020/21

The table below shows the top five issues in each category, where the impact occurs (i.e., within or outside AAHK), and the relevant disclosures in the report.

Most important sustainability issues (in alphabetical order)	Description of impact	Boundary		Report section	
		Inside AAHK	Outside AAHK		
Economic and Society					
	Air cargo strategy	Develop HKIA into a high-value air cargo hub to capture demands for e-commerce and temperature-controlled cargo	✓	✓	About Airport Authority Hong Kong and Airport City
	Connectivity	Strengthen HKIA's global air network and connectivity in the Greater Bay Area (GBA) to reinforce its hub status	✓	✓	Airport City
	Economic and social contribution	Strengthen HKIA as a key driver for the economic and social growth of Hong Kong	✓	✓	About Airport Authority Hong Kong and Community
	Financial management	Strengthen AAHK's ability to operate and maintain financial sustainability with prudent financial discipline	✓	✓	About Airport Authority Hong Kong
	Infrastructure development	Develop HKIA as an Airport City by implementing infrastructure development projects	✓	✓	Airport City
Environment					
	Carbon and energy	Minimise energy consumption and GHG emissions generated from the operation and development of HKIA	✓	✓	Greenest Airport
	Climate-related risks and impacts	Evaluate the risks arising from climate change and manage its impacts on the operation and development of HKIA	✓	✓	Greenest Airport
	Environmental management	Implement an environmental management system to manage, measure and continuously enhance HKIA's environmental performance	✓	✓	Greenest Airport
	Green design and construction	Incorporate environmental considerations and green design elements at the design and construction stages of HKIA's development projects	✓	✓	Greenest Airport
	Waste	Reduce and recycle the solid waste generated from the operation and development of HKIA	✓	✓	Greenest Airport

Most important sustainability issues (in alphabetical order)	Description of impact	Boundary		Report section	
		Inside AAHK	Outside AAHK		
Operating Practices					
	Airport safety and security	Maintain a safe aerodrome and ensure the safety and security of passengers, airport staff and other airport users	✓	✓	World-class Gateway
	Contingency planning	Identify and respond to potential disruptions that may affect airport operations and strengthen operational resilience of HKIA	✓	✓	World-class Gateway
	Customer experience	Maintain the highest standards of service quality and enrich the customer/passenger experience	✓	✓	World-class Gateway
	Cybersecurity and information security	Protect HKIA's systems and networks from cyber-attacks and ensure the confidentiality and integrity of AAHK's data and information assets	✓	✓	World-class Gateway
	Innovation and technology	Accelerate the transformation of HKIA into a fully digitalised airport by employing innovative technologies	✓	✓	World-class Gateway
People					
	Attracting talent	Attract and recruit the right talent to meet business needs	✓		Our People
	Employee engagement	Engage AAHK's employees through various communication platforms and staff activities	✓		Our People
	Employee well-being	Maintain a safe workplace and promote physical health, mental health and social well-being of AAHK's employees	✓		Our People
	Retention and turnover	Strengthen AAHK's ability to retain staff and monitor staff turnover	✓		Our People
	Training and career development	Provide training and development opportunities to equip AAHK's employees with necessary competencies and skills	✓		Our People

Stakeholder Engagement

AAHK engages with a wide range of stakeholders to better understand and respond to their needs, make better-informed business decisions, and better manage the resulting impact of these decisions. We define stakeholders as groups that interact with us and are influenced by, have an influence over, or have a vested interest in AAHK or HKIA.

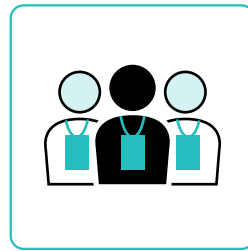
The tables below set out our key stakeholder groups, their key interests, and the regular engagement methods adopted. Due to the COVID-19 pandemic and the social distance restrictions imposed, some of the engagement activities below were suspended or switched to an online format in 2020/21.



Airport business partners



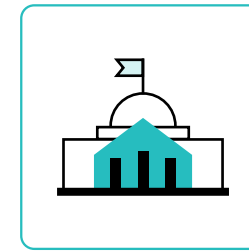
Contractors and suppliers



Employees



Passengers



Government departments and regulatory authorities



Legislative and district councillors, and political groups



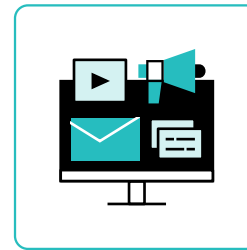
Industry associations and professional bodies



Non-governmental organisations, fishermen groups and workers' unions



Local community



Media



Financial institutions



Young people



Airport business partners

Engagement methods

- Regular and ad hoc meetings
- Committees and liaison groups
- Audits and inspections
- Drills, exercises and training workshops
- Emails and circulars
- Environmental and community activities
- Sharing of survey results and intelligence
- Award and recognition schemes

Key interests

- Airport planning and development
- Application of new technologies
- Airport safety and security
- Business continuity and contingency planning
- Operational issues
- Staff transport
- Labour issues
- Environmental management
- Planning for major events
- Service quality and customer feedback
- Social and community issues
- Training and development
- Public health issues



Employees

Engagement methods

- Regular and ad hoc meetings
- Committees and liaison groups
- Conferences, briefings and town hall meetings
- Drills, exercises and training workshops
- Emails, circulars and manuals
- Environmental and community activities
- Surveys
- Awards and recognition schemes
- Employee relations activities

Key interests

- Staff remuneration, benefits and well-being
- Staff transport
- General staff safety
- Harmonious working environment
- Operational issues
- Environmental management
- Airport planning and development
- Business continuity and contingency planning
- Corporate governance and internal controls
- Legal compliance



Contractors and suppliers

Engagement methods

- Regular and ad hoc meetings
- Audits and inspections
- Briefings and workshops
- Emails and circulars
- Tendering process
- Performance review meetings
- Award and recognition schemes
- Company website

Key interests

- Operational issues
- Service performance standard
- Airport safety and security
- Business continuity and contingency planning
- Supply chain management
- Ethics and integrity
- Contractor safety
- Environmental management
- Airport planning and development
- Public health issues



Passengers

Engagement methods

- Customer service counters
- Telephone response centre
- Airport Ambassadors and Airport Safety Ambassadors
- Leaflets and exhibitions
- Environmental and community activities
- Public announcements and posters
- Website and mobile apps
- Surveys

Key interests

- New facilities and services
- Connectivity
- Passenger experience and feedback
- Service quality
- Retail offers and incentives
- Passenger safety and health
- Business continuity and contingency planning
- Environmental management



Government departments and regulatory authorities

Engagement methods

- Training workshops
- Audits and inspections
- Forums, committees and liaison groups
- Annual and interim reports and results announcements
- Working groups
- Briefings and airport visits
- Regular and ad hoc meetings
- Tax filings

Key interests

- Airport planning and development
- Financial performance and funding for the 3RS
- Airport safety and security
- Emergency response and business continuity
- Operational efficiency
- Contribution to Hong Kong's economy
- Corporate governance and internal controls
- Environmental impact of the airport
- Public health and safety
- Transportation and road management
- Training and development



Industry associations and professional bodies

Engagement methods

- Emails
- Conference, forums and exhibitions
- Briefings and airport visits
- Professional Liaison Group
- Participation in committees and sub-committees
- Regular and ad hoc meetings
- Response to surveys
- Participation in awards and recognition schemes

Key interests

- New facilities and services
- Smart technology
- Funding for the 3RS
- Airport planning and development
- Environmental impact of the airport
- Market information
- Health and safety issue
- Operational issues and efficiency
- Transportation and road management
- Contribution to Hong Kong's economy
- Procurement practices
- Corporate governance



Legislative and district councillors, and political groups

Engagement methods

- Committees and liaison groups
- Briefings and airport visits
- Regular and ad hoc meetings

Key interests

- New facilities and services
- Financial performance and funding for the 3RS
- Smart technology
- Airport planning and development
- Transportation and road management
- Environmental impact of the airport
- Corporate governance



NGO Non-governmental organisations, fishermen groups and workers' unions

Engagement methods

- Regular and ad hoc meetings
- Liaison groups
- Briefings and airport visits
- Fisheries Enhancement Fund (FEF), Marine Ecology Enhancement Fund (MEEF) and HKIA Environmental Fund

Key interests

- New facilities and services
- Environmental impact of the airport
- Social and community issues
- Operational efficiency
- Airport planning and development
- Airport safety
- Health and safety issue
- Airport accessibility



Local community

Engagement methods

- Briefings and airport visits
- AA Staff Club's Social Service Group
- Community investment project
- Community Liaison Groups
- Meetings with village representatives

Key interests

- Environmental impact of the airport
- New facilities and services
- Smart technology
- Airport planning and development
- Social and community issues
- Transportation and road management



Financial institutions

Engagement methods

- Regular and ad hoc meetings
- Investor meetings
- Annual and interim reports and results announcement

Key interests

- Airport planning and development
- Financial performance and funding for AAHK
- Cash management
- Environmental, social and governance (ESG) financing
- Financial risk management
- Business and operations overview
- Green and sustainable commitments and performance



Media

Engagement methods

- Workshops, briefings and airport visits
- Meetings with media heads, editors and opinion leaders
- Press releases and publications
- Media hotline and email

Key interests

- New facilities and services
- Financial performance and funding for the 3RS
- Smart technology
- Airport planning and development
- Airport operations
- Corporate governance
- Environmental impact of the airport



Young people

Engagement methods

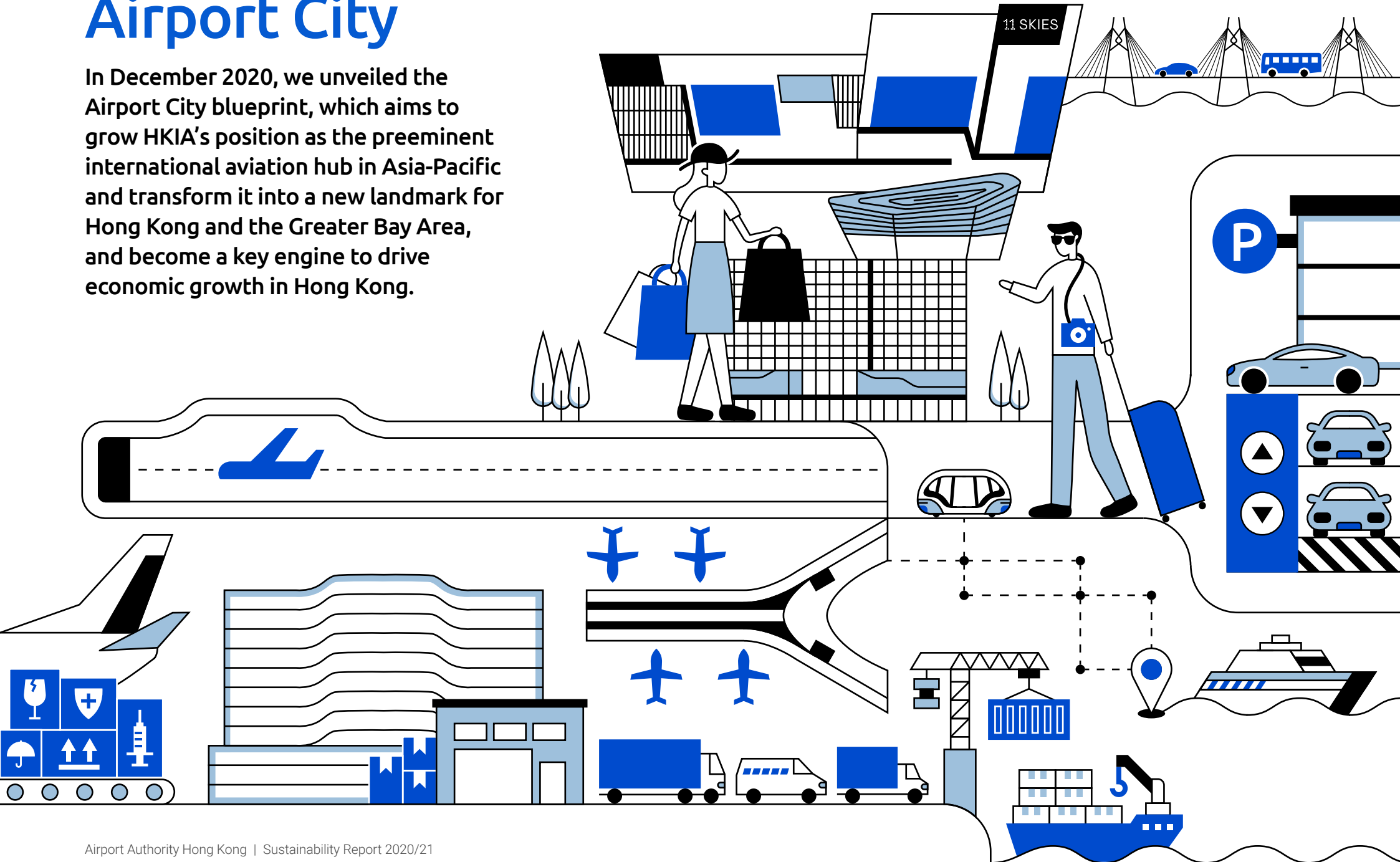
- Workshops, briefings and airport visits
- Forums and exhibitions
- Management Trainee Programme
- Graduate Engineer Programme
- Summer Internship Programme
- Partnership with community organisations that engage youths
- Surveys
- Social media
- Mentoring programmes
- Community investment project

Key interests

- Job opportunities and career development
- Airport planning and development
- Economic contribution
- Environmental management
- Social and community issues

Airport City

In December 2020, we unveiled the Airport City blueprint, which aims to grow HKIA's position as the preeminent international aviation hub in Asia-Pacific and transform it into a new landmark for Hong Kong and the Greater Bay Area, and become a key engine to drive economic growth in Hong Kong.



Overview of the Airport City Vision



- 1 Three-Runway System**
Substantially increasing HKIA's handling capacity to meet long-term air traffic demand
- 2 Airport Facilities Enhancement**
Investment in major enhancement projects to increase terminal capacity and enrich the passenger experience
- 3 SKYCITY and AsiaWorld-Expo Phase II Development**
An integral part of the Airport City development to transform HKIA into a new landmark for both visitors and local residents
- 4 Hong Kong Boundary Crossing Facilities Island Development**
New land use opportunities that leverage HKIA's unique geographical advantage and proximity to the Hong Kong-Zhuhai-Macao Bridge (HZMB)
- 5 Creating Synergies with the Greater Bay Area**
Capitalising on the growth potential of the GBA and expanding our catchment area
- 6 Air Cargo Development**
Strengthening HKIA's capabilities as a high-value cargo hub to secure its leading position and as part of our strategy that echoes the GBA development

Expanding HKIA's Capacity and Functionality

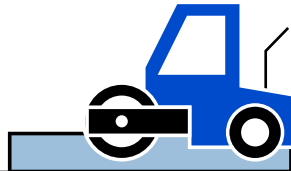
In 2020/21, we remained focused on our long-term vision to transform HKIA into an Airport City, with significant progress achieved across various key projects.

Three-Runway System

Commenced in 2016, the construction of the 3RS comprises several key components:

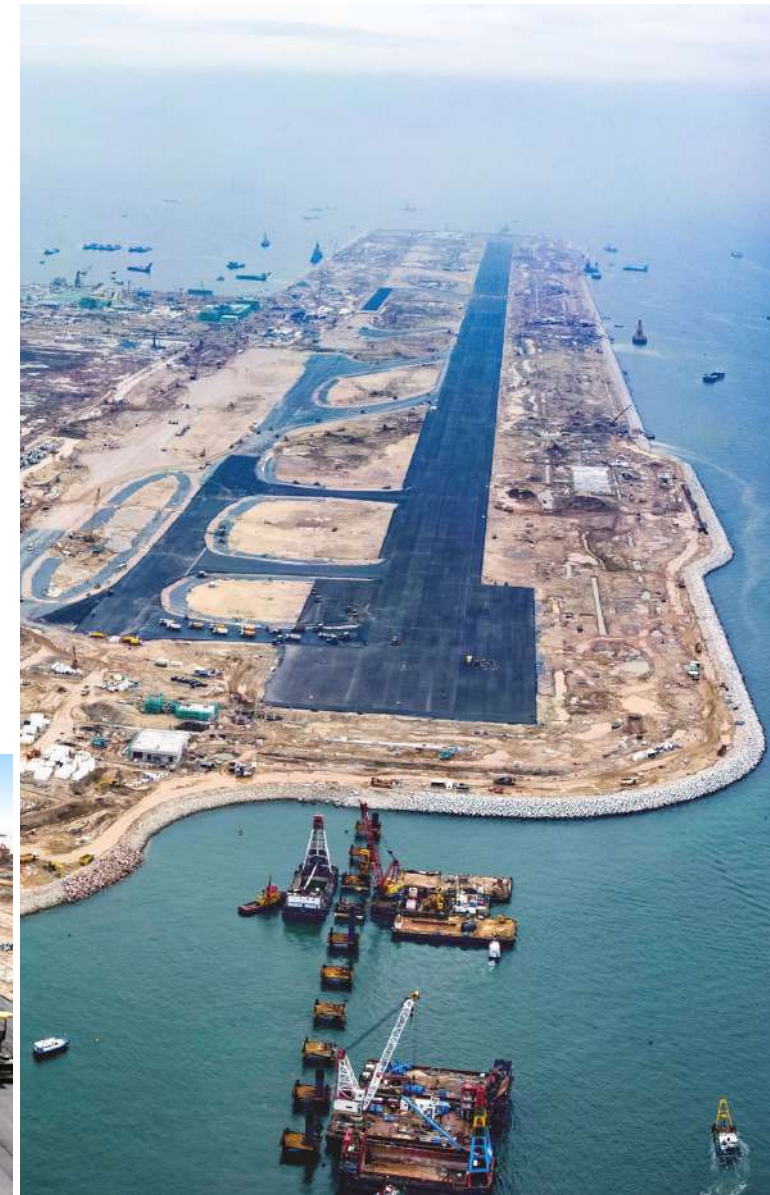
- Reclamation of 650 hectares of land;
- Construction of the T2 Concourse (T2C, formerly known as Third Runway Passenger Building) and an associated apron;
- Construction of a new 3,800-metre-long runway and its supporting taxiway systems, and reconfiguration of the existing North Runway;
- Expansion of the original Terminal 2 (T2) to provide full-fledged passenger services facilities; and
- Construction of a new automated people mover (APM) system, a new baggage handling system (BHS), and other associated airport support infrastructure, road network and transportation facilities.

Completion of Third Runway Pavement



Despite the challenges under the COVID-19 pandemic, we are able to maintain the construction progress of the 3RS Project with a view to commissioning the Third Runway in 2022 and the entire 3RS Project by 2024. Major achievements in 2020/21 include:

- **Land formation** – reclamation works was approximately 95% complete as of April 2021.
- **Airfield works** – pavement works on the Third Runway began in October 2020 and completed in June 2021. The installation of marine piles for the runway approach lights at the western end of the Third Runway was completed.
- **Building and infrastructure works** – Removal of the façade and roof steel trusses of the decommissioned T2 was completed in April 2021. The contract for the main works of the T2C was awarded in November 2020. Detailed design of the APM system and BHS was completed. The majority of the construction support facilities and services, e.g., safety induction centre, medical centre, and vehicle maintenance facility, commenced operation in the first quarter of 2021.





Airport Facilities Enhancement

In parallel with the 3RS, we have been continuously enhancing airport facilities. These include the renovation of boarding gates, expansion of Terminal 1 (T1)'s East Hall, and construction of Sky Bridge to connect T1 and T1 Satellite Concourse (T1S, formerly known as North Satellite Concourse), which will be ready to commence service when air traffic recovers. We are also leveraging technology to enrich passenger services. More details of these enhancement projects and initiatives can be found in the [World-class Gateway](#) section.

SKYCITY and AsiaWorld-Expo Phase II Development

As a key component of the Airport City development, the 25-hectare SKYCITY will offer a full array of retail, dining and entertainment facilities along with hotels and offices. The first hotel, Regala Skycity Hotel, will be completed by the end of 2021, providing around 1,200 rooms. Operated by K11, 11 SKIES is a 3.8 million-square-foot retail, dining and entertainment (RDE) complex – set to become the largest integrated RDE facility in Hong Kong. It will also include three grade A office towers with a total floor area of 570,000 square feet, targeting tenants from wealth management, wellness and medical services, and businesses from the GBA. 11 SKIES will open in phases from 2022 onwards.

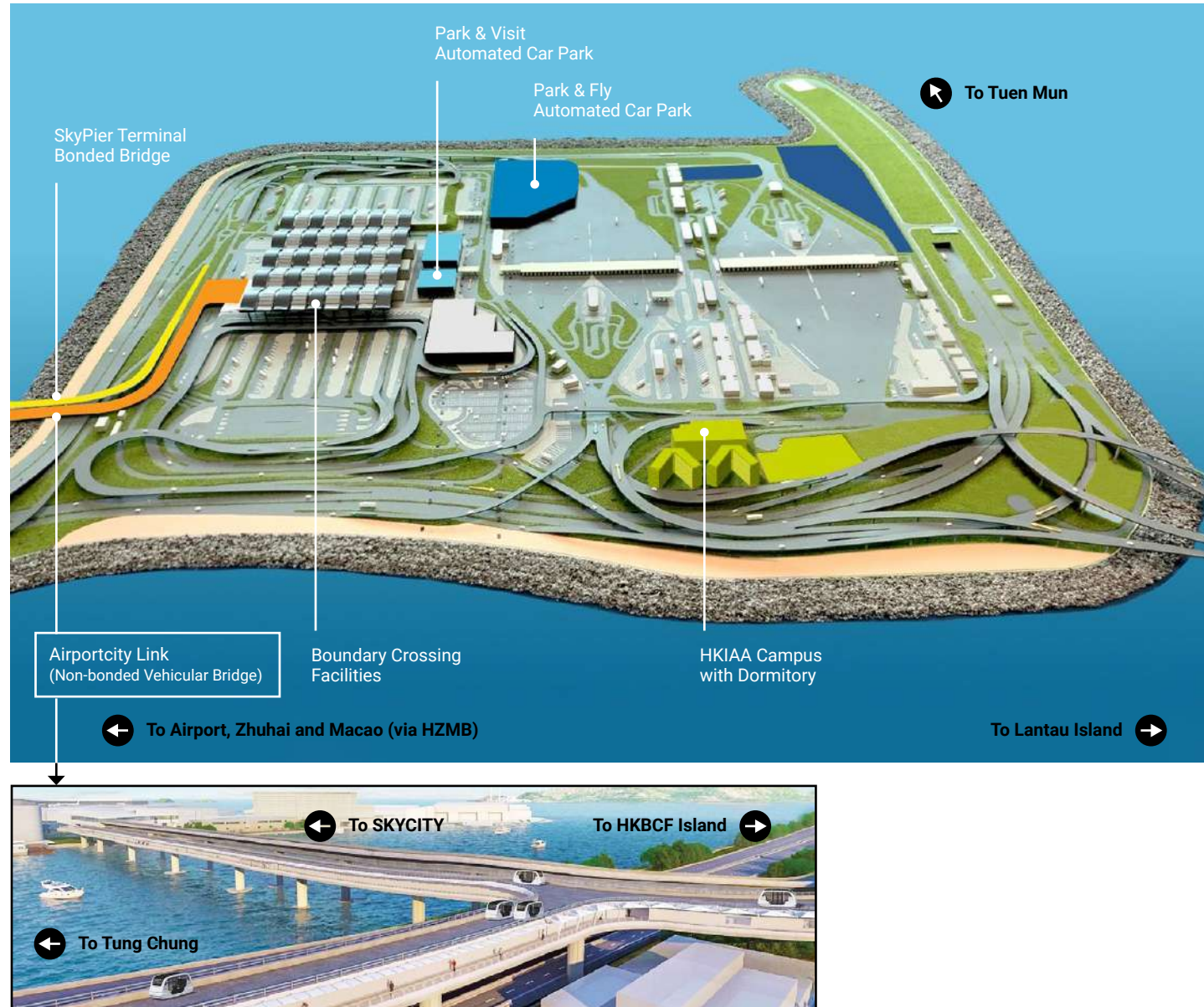
Phase two of the AsiaWorld-Expo (AWE) will include the largest indoor performance venue in Hong Kong, designed to accommodate 20,000 people. Upon its completion, the total gross floor area of AWE's exhibition and convention facilities will increase to 100,000 square metres. We expect the synergy between AWE and SKYCITY will help transform HKIA into a new landmark for both visitors and local residents.



Hong Kong Boundary Crossing Facilities Island Development

With the approval of the HKSAR Government, we will build two automated car parks, 'Park and Fly' and 'Park and Visit' on the Hong Kong Boundary Crossing Facilities (HKBCF) Island, providing around 6,000 parking spaces in phases. 'Park and Fly' will enable passengers from the GBA to travel directly from the HKBCF Island restricted area to HKIA's restricted area via the SkyPier Terminal (SPT, formerly known as the Intermodal Transfer Terminal) without having to go through immigration procedures in Hong Kong. 'Park and Visit' will facilitate visitors from the GBA to reach SKYCITY and other parts of Hong Kong via the Airportcity Link, a non-bonded bridge connecting the HKBCF Island and SKYCITY. The Airportcity Link will include a pedestrian walkway and vehicular road served by electric vehicles and ultimately an autonomous transportation system supported by zero-emission autonomous vehicles. We received an environmental permit for the Airportcity Link in October 2020 and the detailed design began in 2021/22. An extension of the autonomous transportation system linking SKYCITY and Tung Chung town centre (Airport Tung Chung Link) has been planned. An Environmental Impact Assessment (EIA) Study Brief for this project was issued by the Environmental Protection Department in July 2021.

A new campus and dormitory for Hong Kong International Aviation Academy (HKIAA) and other aviation-related facilities will also be built on the HKBCF Island.



Creating Synergies with the Greater Bay Area

Travel restrictions and quarantine measures caused the suspension of most cross-boundary land and sea transportation services in 2020/21. Nevertheless, we are strengthening connectivity with the GBA and collaboration with Zhuhai Airport to reinforce HKIA's hub status and associated functions in the long run.

Cross-boundary Connectivity

We are looking to further strengthen our cross-boundary services in preparation for a traffic rebound. This includes expanding the catchment area with the planned new City

Terminals in Huizhou and Zhuhai Hengqin and introduction of new SkyPier ferry services to and from Guangzhou Pazhou upon the lifting of travel restrictions.

HKIA's connectivity will also be further strengthened by infrastructure development. The SPT with a bonded vehicular bridge connecting to the HKBCF will facilitate transfers of air passengers arriving or departing via the HZMB by eliminating the need for travellers to go through immigration formalities in Hong Kong. The SPT is scheduled for completion in 2022, while the construction of the bonded bridge commenced in July 2020.

Collaboration with Zhuhai Airport

We have been operating and managing the Zhuhai Airport via a joint venture since 2006. The commissioning of the HZMB has significantly shortened the travel time between HKIA and Zhuhai Airport and provides an opportunity for further co-operation by integrating the mainland aviation network of Zhuhai Airport with the international network of HKIA. We are in the process of discussing an equity injection into Zhuhai Airport to pave the way for long-term and extensive collaboration between the two airports.

HKIA's land and sea connections with the Greater Bay Area

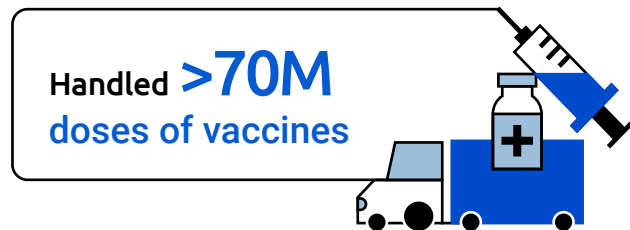


- Ports connected by SkyPier ferry services
- City Terminals offering upstream check-in services

Developing HKIA into a High-value Air Cargo Hub

Cargo volumes at HKIA remained resilient in 2020/21, handling 4.6 million tonnes of cargo and airmail. Our investments in high-value, high-growth segments over the past few years not only help to maintain HKIA's cargo leadership position, but also enable us to handle the delivery of urgent and crucial goods such as vaccines and medical products during the pandemic. Our three cargo terminal operators, three ramp handling operators and a home-based carrier achieved the International Air Transport Association (IATA)'s Centre of Excellence for Independent Validators in Pharmaceutical Logistics (CEIV Pharma) Certification, making HKIA one of the few airports recognised by the IATA as a CEIV Pharma Partner Airport. Moreover, we have been enhancing our cold chain capability. For example, we commissioned two pioneering apron shelters in February 2021 and operate about 30 cool dollies – the largest fleet among all airports in Asia.

In December 2020, we set up the HKIA Community Taskforce with the cargo community, government departments, pharmaceutical companies and other logistics operators to efficiently handle vaccines at the airport. As of September 2021, over 70 million doses of vaccines were handled at HKIA for local community and transshipping to Macao and other countries.



Expanding HKIA's Cargo Capabilities

We are planning to set up a logistics park in Dongguan and an airside intermodal cargo handling facility at HKIA, with a view to expanding HKIA's cargo catchment in the GBA. The logistics park will adopt a new cargo business mode with customs clearance, security screening, palletisation, cargo acceptance and other services for mainland exports, to be completed in Dongguan before shipping the goods to the cargo handling facility in the restricted area of HKIA by sea, for air transshipment to other destinations over the world. International cargo may also be imported into Mainland China through the reverse process. A pilot scheme will be launched by the end of 2021.

To capture the increasing business opportunities generated from cross-border e-commerce and express cargo, we have been developing new facilities to enhance HKIA's handling capacity. These include the expansion of DHL Central Asia Hub, development of a premium logistics centre and a transit mail centre.



Expansion of DHL Central Asia Hub (Target Completion: 2022)

- One of the three global hubs for DHL
- Increase handling capacity by 50% to over 1 million tonnes per annum



Kwo Lo Wan Premium Logistics Centre (Target Completion: 2023)

- Developed by a joint venture led by Cainiao Network, a subsidiary of Alibaba Group
- Estimated gross floor area of 380,000 square metres, the third largest warehouse in Hong Kong



Transit Mail Centre (Target Completion: 2025)

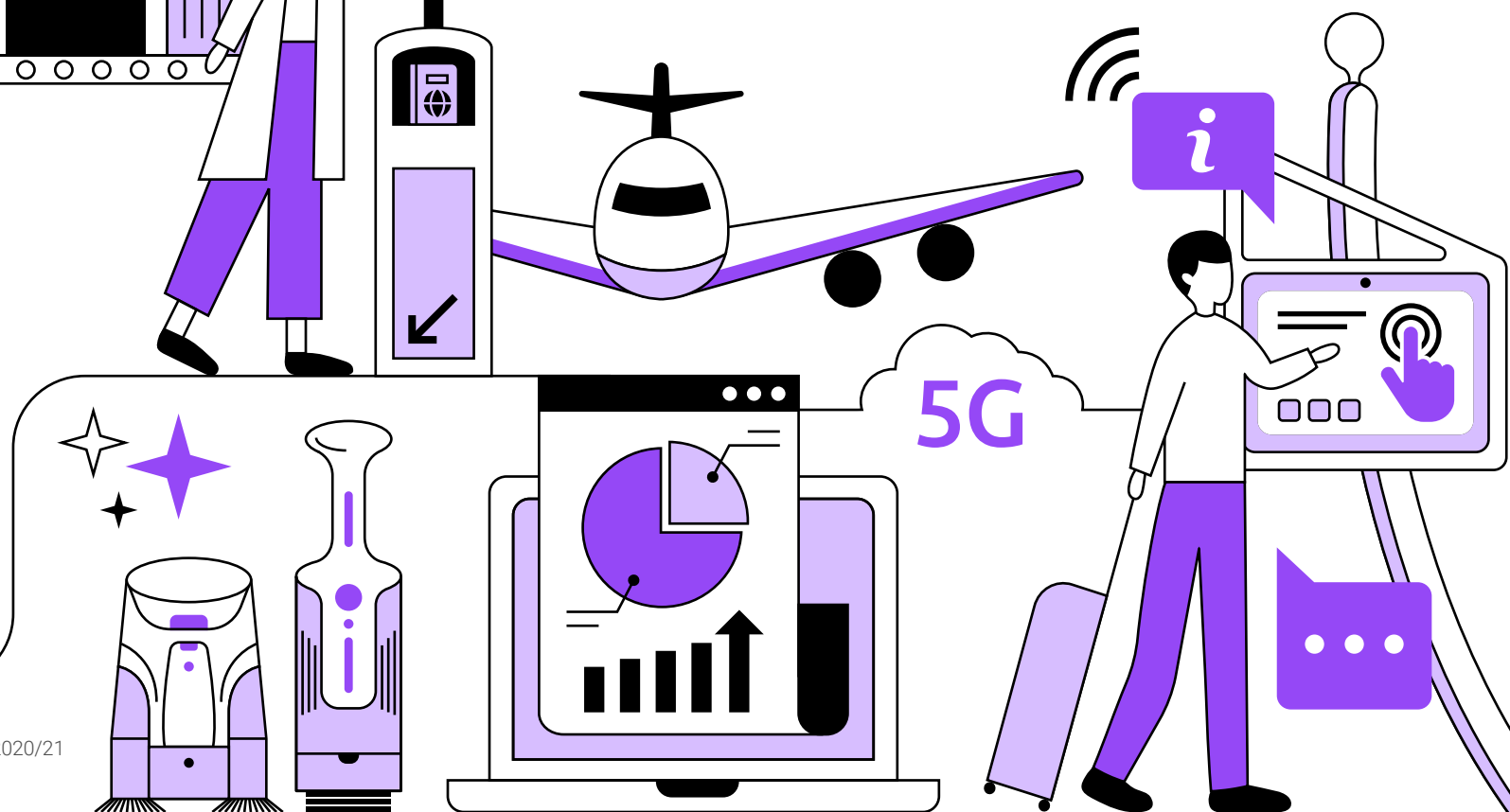
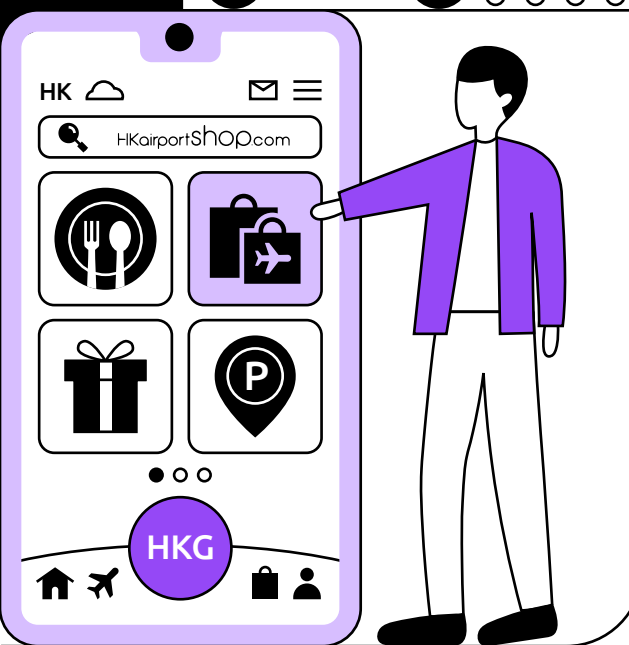
- Handle transit mail from Mainland China
- Capitalise on the increasing airmail traffic transiting through Hong Kong





World-Class Gateway

Despite the challenges posed by the pandemic, we remain firmly committed to operating a world-class airport that provides passengers with a safe and secure, smart and efficient, and enjoyable airport experience.



Safeguarding Against COVID-19

When COVID-19 began to spread globally in early 2020, we implemented a series of measures to protect the health of passengers, airport staff and other airport users. As the first point-of-entry into the city, we also worked closely with the HKSAR Government and business partners to implement infection control measures and quarantine procedures at HKIA.

Enhanced Precautionary and Protection Measures

With our on-going efforts in maintaining high standards of health and safety in airport operations, HKIA was among the first few Asia-Pacific airports recognised in the Airports Council International (ACI)'s Airport Health Accreditation (AHA) programme in September 2020. The AHA programme was launched in July 2020 to assess how aligned an airport's health measures are with the industry guidelines and best practices.

In 2020/21, we implemented a host of enhanced health measures at HKIA. These include stepping up cleaning and disinfection efforts on airport facilities and passenger amenities, mandating that all passengers and staff wear masks, and conducting temperature screening for all persons entering the terminal and arrivals. We have also applied cutting-edge technologies to supplement manual cleaning and disinfection efforts and reduce the risk of virus transmission to our cleaning contractors and airport users. For instance, HKIA was the first airport to trial a full-body disinfection channel facility and to deploy the Intelligent Sterilisation Robots equipped with UV light and air sterilisers to help clean and sanitise the terminal. Meanwhile, we have deployed autonomous cleaning robots and applied antimicrobial coatings to high-touch surfaces,

such as check-in counters and baggage trolley handles, for long-lasting protection to airport users. Leveraging biometrics and touchless technologies, we have introduced e-Boarding Gates and touchless lifts to reduce physical interaction between airport staff and travellers, and to minimise contact with touchscreens and other surfaces under COVID-19.

Collaboration with Government Departments and the Airport Community

As the operator of HKIA, we have coordinated closely with the HKSAR Government and the airport community to enforce all health, quarantine and testing requirements imposed by the Government.

To prevent further spread of the disease from overseas, we deployed additional manpower to facilitate the arrival of the government-arranged chartered flights with Hong Kong residents who were on board the Diamond Princess cruise and stranded in Hubei Province.

We have also facilitated the HKSAR Government's provision of free COVID-19 testing for airport staff by setting up

designated counters for collecting and returning deep throat saliva specimen collection packs from May 2020 to September 2021. In February 2021, we swiftly implemented testing schemes at HKIA for airport staff by setting up four Dedicated Testing Centres to perform the combined nasal and throat swabs test.

Our outstanding contributions towards maintaining smooth airport operations and implementing quarantine measures in the fight against COVID-19 were recognised. In October 2020, the HKSAR Government bestowed three AAHK staff with the Chief Executive's Commendation for Community Service.

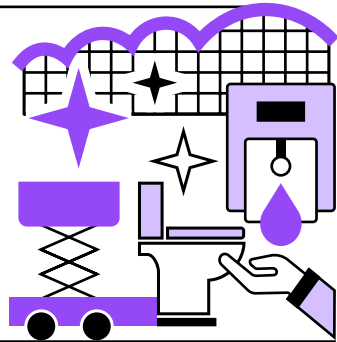
Preparation for a Post-pandemic Recovery

In the meantime, we started preparing for a post-pandemic recovery, including setting up a commercial COVID-19 testing service at HKIA for the convenience of passengers. Moreover, we collaborated with Los Angeles International Airport to conduct a trial of a digital health pass, which stores a passenger's COVID-19 test results or vaccine information for more efficient health document checks and verification.

Installed >400 hand sanitiser stations

Revamped ~100 toilets to upgrade sanitary standards

Comprehensive cleaning of >150,000 m² high-level ceiling at T1

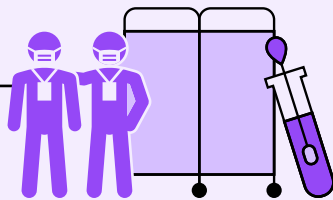




Case Study: Turning T1 Midfield Concourse into a Temporary Specimen Collection Centre

To facilitate the HKSAR Government's quarantine procedures for arriving passengers at HKIA, the T1 Midfield Concourse (T1M, formerly known as the Midfield Concourse) was converted into the Temporary Specimen Collection Centre (TSCC) of the Department of Health in late July 2020. A team of more than 250 staff members from AAHK, the airport community and relevant government departments worked together to complete the conversion in less than two weeks.

>250 staff members
participated in the
TSCC conversion



Maintaining a Safe, Secure and Resilient Airport

Ensuring the safety of airport staff and passengers and airport operations is always our top priority, even during the pandemic. Moreover, we also need to be well-prepared at all times to predict, prevent and, where necessary, respond swiftly to all potential disruptions and crises that may affect the smooth operation of HKIA.

Airport Safety and Security

We strive to be the world's safest airport and are committed to creating an injury-free workplace. To achieve this, we operate an airport-wide safety management system, which provides a robust framework for managing safety at HKIA and work closely with our employees and the airport community to cultivate a 'safety first' culture. We are also applying new technologies to further strengthen the safety of HKIA.

With lower passenger numbers due to COVID-19, the Airport Composite Safety Index (ACSI) in 2020/21 was at 136.5 injuries per million passengers. The ACSI is a passenger volume-based ratio and the 2020/21 figure was not able to accurately reflect HKIA's safety performance during the year.

Building a safety culture



AAHK employees

- **2020 Safety Climate Assessment** – In November and December 2020, we conducted the biennial Safety Climate Assessment to assess perceptions of and attitudes towards safety among our employees. The Corporate Safety Climate Means showed a slight improvement from 3.54 in 2018 to 3.56 in 2020. A score between 3 and 4 is considered satisfactory in an organisation.



Airport community

- **HKIA Safety Campaign** – We ran an airport-wide campaign in 2020/21 involving a series of activities designed to look out for the well-being of our employees, business partners and passengers. Themed topics of the campaign included accident prevention, ramp and tenant area safety, terminal and landside safety, and fire safety.
- **2020/21 Airport Safety Recognition Scheme** – 31 airport organisations and 206 individuals and groups were recognised in this annual scheme for their contributions towards fostering a safety culture and enhancing safety awareness at HKIA.
- **2019/20 Safety Awards for HKIA Aviation Logistics Partners** – We launched the Zero Injury Awards and Safety Performance Awards to recognise the concerted efforts of business partners in reinforcing safety in their daily operations.



Building a safety culture (continued)

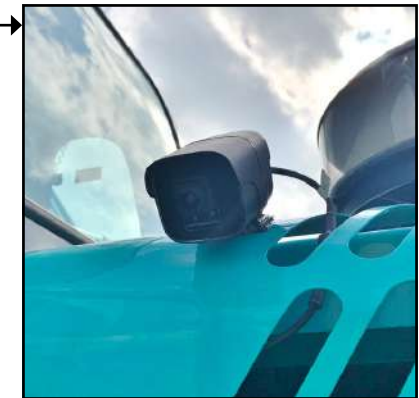


Contractors for the 3RS Project

- **People-Plant Interface Promotion Campaign** –

The People-Plant Interface (PPI) is a primary potential hazard that causes incidents in construction projects. As part of our VCommit Safety Programme, we ran a PPI Promotion Campaign throughout the first half of 2020, including the introduction of an innovative I-Vision Smart Monitoring System in excavators to provide workers with better control of the area around construction plants and equipment. Another key part of the campaign was the presentation of the Best PPI Safety Management Award to recognise 3RS contractors who demonstrated outstanding construction site safety management.

- **LIFE First safety campaign** – In support of the Construction Industry Council's industry-wide campaign, we launched a five-day safety awareness programme in August 2020. The programme covered 35 3RS projects among all levels of the workforce and delivered informative safety messages through daily safety initiatives and promotional materials. It also included the 1-Hour Cool Down Break activity involving management representatives from TRD and contractors, and the Daily Joint Safety Risk Review.



Enhanced safety systems

Unauthorised use of Unmanned Aircraft System (UAS) in the vicinity of HKIA may pose a serious threat to aviation safety. To facilitate airport staff in locating a UAS upon reports of suspected intrusion at HKIA, we implemented an automated detection system in the existing Two-Runway System (2RS) area in 2020/21. We will further review and fine-tune the system in 2021/22, and consider to expand to the Third Runway in the future.

In addition, we are in the process of deploying a single digital platform, named the Digital Apron and Tower Management System (DATMS). The DATMS includes a digital apron management system, which will provide aerodrome surveillance and anomaly detection functionality, and digital tower facilities to the Civil Aviation Department (CAD) to facilitate the provision of safe and efficient air traffic control services.

Air cargo security

To meet the International Civil Aviation Organization (ICAO)'s new policy direction towards enhancing global air cargo security, effective from 1 July 2021, we have worked closely with the CAD to facilitate the local logistics industry in gradually increasing air cargo screening capacity in phases by setting up off-airport Regulated Air Cargo Screening Facilities (RACSFs). Over 140 RACSFs have been accepted by the CAD so far, ensuring the successful implementation of 100% security screening for export air cargo.

Contingency Planning

We proactively assess and prepare for potential disruptions and crises that may affect the operation of HKIA, and have put in place systems and processes to predict, identify, manage and minimise the associated risks, and formulated various contingency response plans for these risks. With a view to strengthening the operational resilience of HKIA, we regularly test these plans with our employees and business partners to ensure the appropriate actions are taken in the event of a disruption or crisis. This year, we held more than 40 drills and exercises covering a wide range of safety and security topics.

Drills and exercises in 2020/21



Aircraft crash and rescue exercise

- To simulate the nose gear of a simulated arrival flight collapsing during landing on the South Runway.



APM disruption drill

- To simulate the breakdown and suspension of APM's SkyPier Line services.



No Land Link field exercise

- To test the emergency response and coordination among different parties on passenger flow and crowd management in the event that the HKSAR Government activates the No Land Link Plan.



Fire exercise

- To simulate the crashing of two airside vehicles at the Eastern Airfield Tunnel.



Ceiling High Angle Rescue Drill

- AAHK's first collaboration with the High Angle Rescue Team of the Fire Services Department to simulate a worker who got locked at the maximum height of the aerial work platform.



Cybersecurity field exercise

- To simulate a cyber-attack on HKIA's flight information systems coinciding with related security incidents at the terminal.



Case Study: Preparation for Typhoon Season under COVID-19

In 2020/21, a massive number of aircraft were grounded at HKIA due to the COVID-19 pandemic. This gave us an additional challenge when preparing for possible inclement weather before entering typhoon season.

To this end, we have drawn up a safety contingency plan with relevant airlines, covering the appropriate preventive measures for aircraft in different situations. For example, preventive measures such as tying weights to the nose gear and placing extra chocks against wheels are applied to idle aircraft. Aircraft parked on taxiways are spaced out and excess aircraft are moved to remote bays with extra chocks placed against their wheels.



Delivering a Smart and Vibrant Airport Experience

Passenger volumes at HKIA fell significantly in 2020/21. Nevertheless, we spared no efforts in upgrading terminal facilities. Our aim is to transform HKIA into a timeless, smart and fully self-serviced airport to offer a more seamless and enjoyable airport experience to travellers.

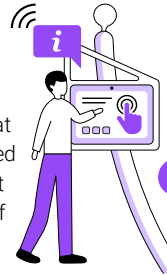
In 2020/21, HKIA received the Level 3 Airport Customer Experience Accreditation from ACI, the only accreditation in the aviation industry that highlights the passenger experience, recognising the implementation of an advanced customer experience strategy through multifaceted engagement. In August 2020, we also received the Team Award – Counter Service (Bronze) of the HKACE Customer Service Excellence Award for the excellent service delivered by our customer service staff.

A Smarter and More Seamless Travel Experience

We continued to make greater use of advanced technologies to roll out more self-service facilities in the context of mitigating the risk of COVID-19 transmission.

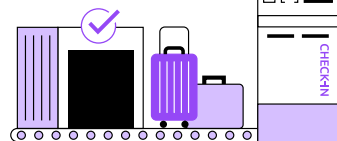
1 Arrival at HKIA

- Over 30 new interactive i-Customer Service Centres (i-CSCs) have been installed at T1. Equipped with an embedded chatbot function and live chat with our customer service staff or shopping ambassadors, it offers wayfinding aid and information on flights, airlines, shops and facilities, and broadcasts special airport announcements related to the pandemic and adverse weather conditions.
- We launched My HKG, the HKIA official mobile app, in March 2021 with new design and user interface. Key features such as flight and baggage delivery status, a wayfinding assistant, Chatbot, airport services booking and food ordering, allowing passengers to experience HKIA in their own way.



2 Check-in and bag drop

- To offer a hassle-free travelling experience, off-airport check-in services are available at various locations including HKBCF, West Kowloon Station, Tsing Yi Station and AWE. In July 2020, home baggage acceptance service was soft launched, offering passengers a revolutionary check-in experience.
- A new Common Self Bag Drop zone was set up at Aisle E for passengers to print bag tags and check their baggage on their own.



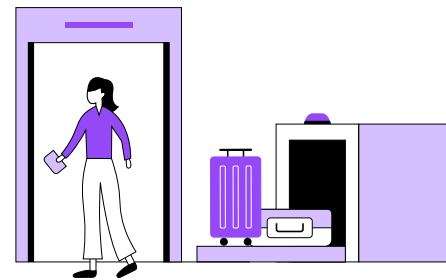
4 Dwell time and shopping

- We finished the revamp of [HKairportShop.com](https://www.hkairportshop.com) in August 2021 to provide more unique online-to-offline services and promotions to engage customers. A new loyalty programme, HKairport Rewards, will also be launched to the public soon.



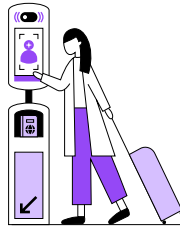
3 Security check

- Following the completion of trials on 'smart lanes' in 2020/21, which includes the adoption of advanced CT-based screening technology, an auto tray return system and body scanners, we will proceed with preparations for phased installations in T1 and the expanded T2 and T2C.



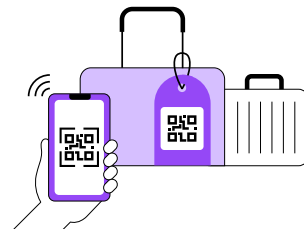
5 Boarding/Transfer

- In January 2021, we commenced the operation of e-Boarding Gates at 25 departure gates in T1. Using biometrics technology to verify passengers' identities, these new boarding gates eliminate the need for travellers to repeatedly present their passports and boarding passes.
- 37 units of e-Security Gate and 22 Assisted Channels were installed at nine transfer checkpoints at T1, T1S and SkyPier in 2020/21.



6 Baggage tracking

- We are developing an upgraded version of MyTAG – MyTAG Pro. Not only does it provide notification to passengers when their bags are ready for pick-up at baggage reclaim belts, it also shows the estimated time required for luggage to deliver to baggage reclaim belts. MyTAG Pro will also notify the passenger if short shipment is encountered regardless of the destination is Hong Kong or not.



A Rejuvenated Terminal

Most shops, restaurants and catering outlets in the terminals suspended operations over the year due to the low volume of passengers, which gave us an opportunity to close some areas and accelerate our revamp, repair and maintenance works. With the completion of enhancement and development projects inside the terminals, we aim to welcome passengers back to HKIA with a fresh experience.



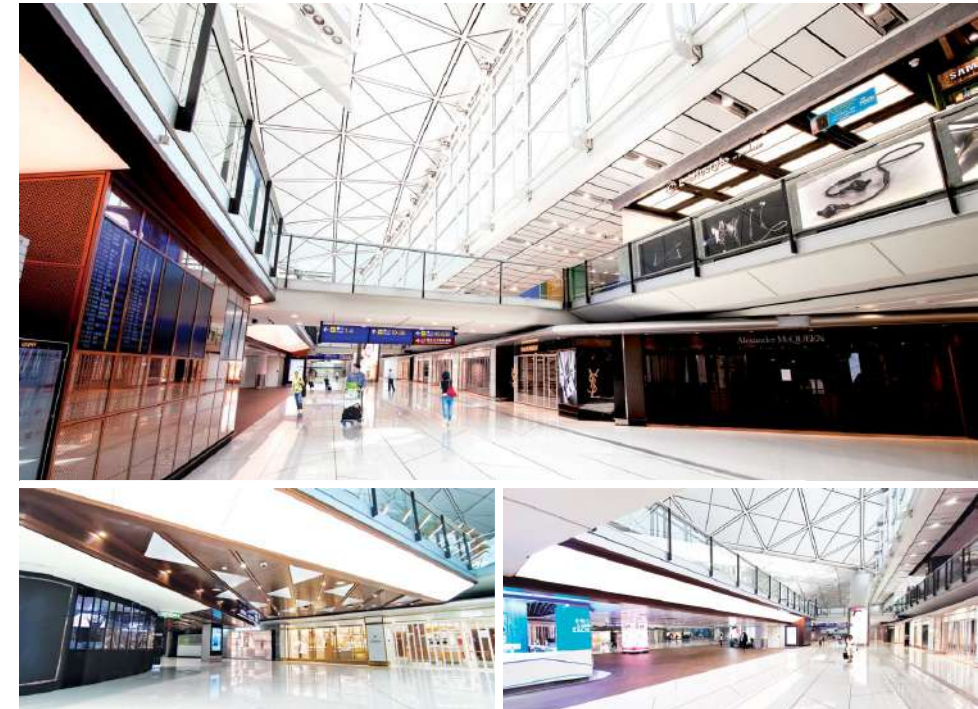
Boarding gate transformation

- In 2020, we kick-started work on a major project to transform T1's boarding gates into vibrant, themed zones. 49 departure gate lounges of T1 will be revamped with new décor and self-boarding gate features. The seating capacity of T1 will also be boosted with a variety of new seating and table options, from individual workstations to dining tables. The transformation works is scheduled to be completed in Q1 2022/23.



Refurbishment of the Luxury Zone at East Hall

- In Q4 2020/21, we completed the renovation of the Luxury Zone in T1. In addition to a new flooring and ceiling lighting design that helps create a luxurious and refreshing ambience, two eye-catching digital cubes and new function walls have been installed for advertising and displaying flight information respectively. The renovated area features over 40 luxury brands and two new fine food brands.





Enhancement of HKIA's passenger facilities

- A new 250-seat food court offering fast food in the Central Concourse was readied for opening. A new commercial HKIA Lounge is being built to offer premium services.



- Renovation of three prayer rooms in T1 and T1S was completed in November 2020. New features include flight information display screen, new seating, floor-fixed prayer mats and ablution facilities with touchless taps.
- The first airside bank offering wealth management service was completed and is ready to open upon traffic resumption.
- New APM train compartments were delivered to HKIA in 2020 and enhancements were made to deliver a more efficient and comfortable journey, including the incorporation of Internet of Things (IoT) technology for real-time train data monitoring. The bogie guidance has also been enhanced to minimise train vibration and the air-conditioning system has been improved to provide effective air disinfection and purification.



- A new wheelchair lift for passengers with reduced mobility has been introduced to allow access to the aircraft cabin with greater ease. The new wheelchair lift offers more advanced safety features, consisting of an extendable operator safety gate to reduce the risk of operators falling from a height.



- In December 2020, a new bus information board was installed at the Ground Transportation Centre to replace the previously static display format. The new board is equipped with a larger and brighter LED screen that shows more legible public bus information, making it easier for passengers to view real-time information, including the next bus departure time.

Digitalising Airport Operations

We are transforming HKIA into a fully digitalised airport and will continue our investment in innovative technologies and system upgrades to enhance operational efficiency.

Launch of a 5G Network

In April 2020, we launched 5G service at the Check-in Hall, Meeters and Greeters Hall and Baggage Reclaim Hall. The broad bandwidth and low latency of 5G offers high network reliability with remarkably faster response time and capability to process an immense amount of data. With all these advantages, 5G capabilities are essential infrastructure to a fully digitalised airport. We will continue to extend the coverage of the 5G network to the remaining T1 areas in 2021/22 and other terminal and office buildings in subsequent years.

Application of Innovative Technologies

In addition to deploying different autonomous cleaning robots to make cleaning and disinfection a more efficient and productive operation, we have also applied automation and robotic solutions in other airport operations, including:



- An indoor patrol robot gathers a variety of data in the terminal buildings, including the temperature and the status of Wi-Fi and iBeacon signals, helping us to collect real-time information on environmental conditions and the wireless signals.

- A robot tug autonomously delivers out-of-gauge (OOG) baggage in the Baggage Reclaim Hall to the designated OOG baggage collection area at each baggage reclaim belt, eliminating the need for staff to manually deliver heavy OOG baggage, hence enhancing work safety.



- The Autonomous Electric Tractor (AET)'s route was extended in October 2020 to provide end-to-end SkyPier baggage conveyance from SkyPier Baggage Hall to T1 Baggage Hall.



- An automated storeroom for spare parts installed with a Smart Warehouse and Management System allows staff to use a mobile app to request spare parts from a remote site.
- A trial of smart maintenance, including robotic inspections of high mast lighting and seawater intake culverts, and real-time apron equipment monitoring systems, will be conducted by 2021/22. Upon successful outcome of ongoing trials, predictive and smart maintenance applications will also be deployed for the inspection of airfield pavement, airfield ground lighting, APM, BHS, and marine cranes and piping.

Throughout HKIA, we digitalised operations and enhanced various systems to leverage the enhanced capability of sharing real-time operational data to perform better analysis and prediction. For example, we advanced the use of a Collaborative Decision Making (CDM) platform by deploying the Terminal-CDM in 2020/21, a strategic tool enabling key players operating at the airport sharing one prediction for passenger volume and services demand. Upon traffic recovery, a system calibration will be conducted to enable data analytics and modelling to predict service bottlenecks and facilitate operational resource planning.

Over the past year, we also expanded the Augmented Airfield Service System (AS2) to include digital visualisations of cargo deliveries. Jointly developed by AAHK, the Chinese University of Hong Kong and ubiZense Limited, the AS2 is a cloud-based service-oriented system which utilises and integrates a multitude of existing disparate data sources to increase real-time operations visibility with descriptive and predictive AI-enabled analytics. The system was first launched in 2018 to monitor the delivery of arrival baggage, and will continue to be expanded to cover the whole aircraft turnaround process.



Meanwhile, we implemented the Digitalised Baggage Containerisation Report (eBCR) system, which replaces the paper-based manual process used to reconcile the baggage loaded onto each aircraft. With the eBCR, staff can file digital reports using their tablets, which are then automatically sent to the airlines, ramp handling agents and the Baggage Management Office, without the need to fill out and submit the paper reports manually. In August 2020,

we commissioned automatic tag readers at all arrival belts in the T1 Baggage Hall. Since then, airlines receive a message to acknowledge that baggage has arrived at HKIA. This makes HKIA the first airport in Asia to enable airlines to track the end-to-end baggage journey in accordance with the IATA's standards.

Turning HKIA into a Data-driven Airport

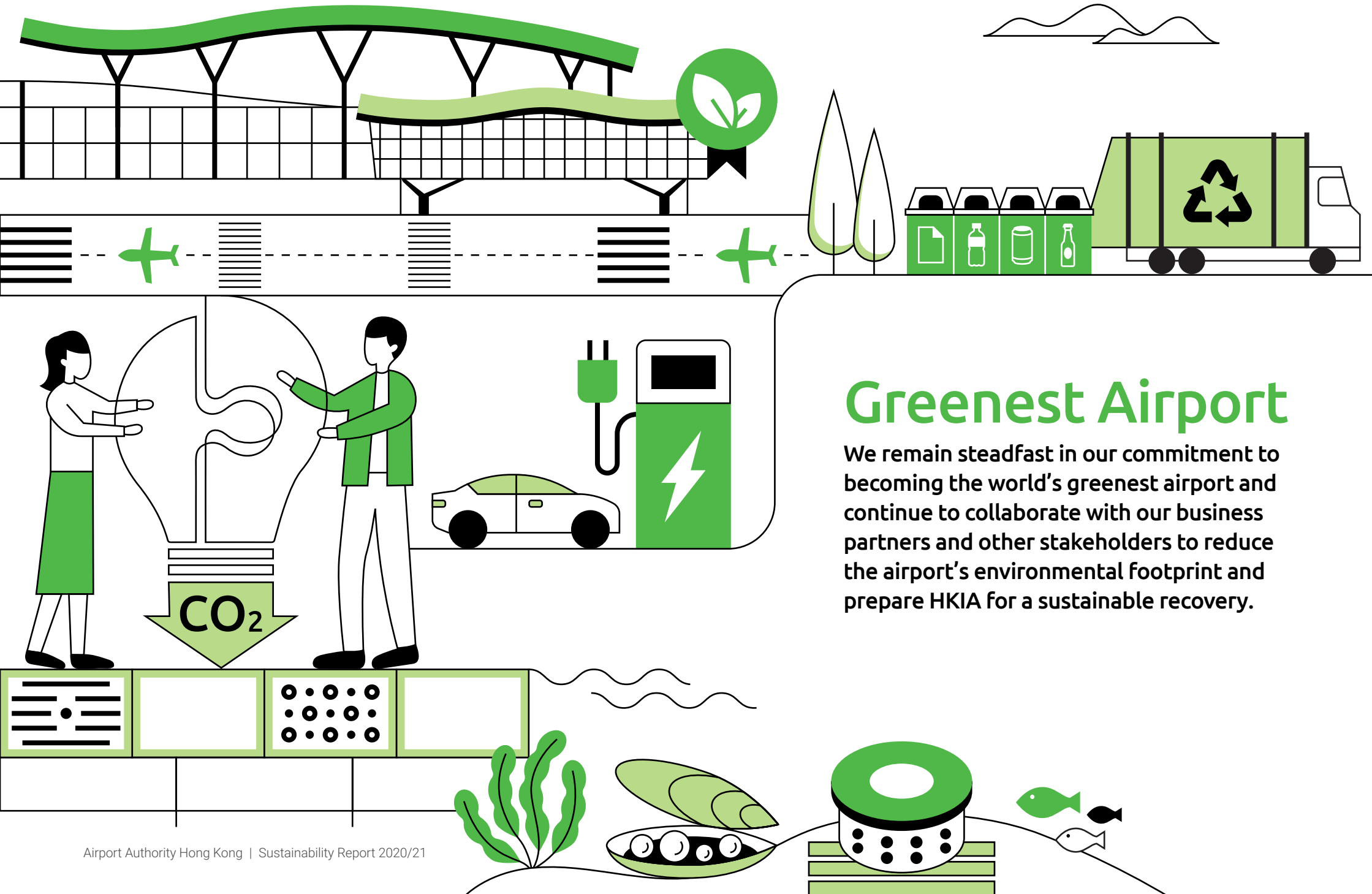
Nowadays, collecting and analysing data is more important than ever for enhancing airport operations and performance. At HKIA, we have established a comprehensive data collection framework which includes identifying target data for collection, building the architecture to store the data, then connecting data and centralising it for analysis. We have begun to apply this framework holistically across several main areas:

- **Passengers and customers** – determining which products and services are of most interest to shoppers by examining online retail shop and e-coupon spending activities, so we can plan our sourcing and marketing activities accordingly.
- **Traffic** – using data analytics to closely review inbound and outbound flight movements, identify peak periods and optimise airport traffic flow to ensure on-schedule operations.
- **Operations** – reviewing cargo handling data can help us increase efficiency and productivity by tracking volume and identifying in-demand services, growing industries and popular new products.
- **Maintenance** – reviewing the operational data of facilities and systems allows us to conduct predictive maintenance on APM and BHS that helps secure smooth and efficient daily operations.

Strengthening Data Governance and Security

With the increasing application of advanced technologies and data analytics at HKIA, we have established the HKIA Technovation and Data Management Board, which is chaired by CEO and attended by relevant Executive Directors and senior management staff. The board is responsible for providing strategic direction on technology and innovation for HKIA's development, as well as overseeing and driving AAHK's data strategy and development, including data governance, data analytics and data management, to meet HKIA's operational and business development needs.

In AAHK, we have formulated a data governance framework, with policies and procedures, to provide clear guidance and description of the rules to control the integrity, security, quality, and usage of data during its lifecycle, from collection to disposal on AAHK's data analytics platform. The policies and associated procedures are applicable for all employees, contractors, and consultants in relation to data access, retrieval, storage, disposal, and backup of the data assets in any data analytics activities on the platform.



Greenest Airport

We remain steadfast in our commitment to becoming the world's greenest airport and continue to collaborate with our business partners and other stakeholders to reduce the airport's environmental footprint and prepare HKIA for a sustainable recovery.

Approach to Environmental Management

Our world's greenest airport pledge underscores AAHK's commitment towards sustainable development and serves as a goal and driver to continuously improve HKIA's environmental performance. We have established a set of corporate-wide policies, which are endorsed by CEO, to reiterate our commitment to achieving high environmental standards. In 2018, we established an ISO 14001-certified environmental management system (EMS), which involves all departments, to manage, measure and continuously improve our environmental performance.

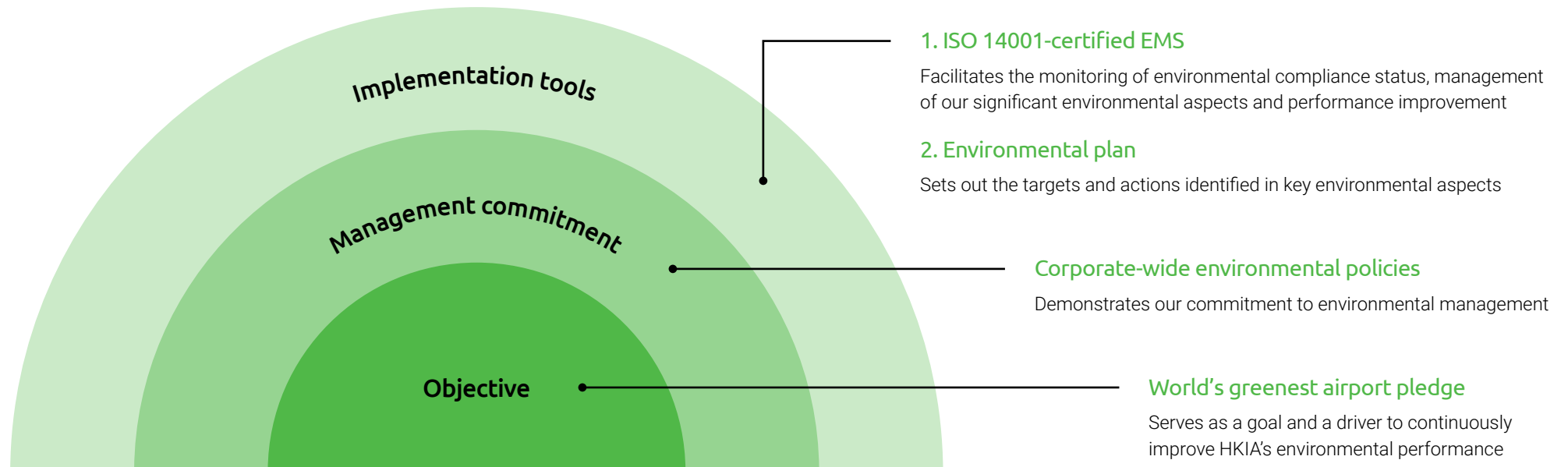
In addition, we maintain an environmental plan which serves as a principal tool for fulfilling our Corporate Environmental Policy Statement. The plan covers our environmental targets and a range of environmental footprint reduction measures in key environmental aspects such as carbon management and climate resilience.

Environmental management is also essential to the successful delivery of the 3RS Project. Therefore, we have implemented a comprehensive environmental

monitoring and audit (EM&A) programme, in accordance with the requirements set out in the 3RS EIA Report and Environmental Permit. A dedicated website for the 3RS Project has been established to provide public access to all environmental monitoring data, finalised submissions, reports and plans.

The subsequent parts of this section detail our approach, initiatives and performance in our key focus areas, including climate change, green design and construction, solid waste and biodiversity.

Our environmental management approach



A Unique Airport-wide Approach

Recognising that a significant proportion of HKIA's environmental footprint is derived from our business partners, we adopt an airport-wide approach to engage with them to accelerate the rate of environmental footprint reduction across HKIA. We administer a range of environmental programmes and encourage their participations in these programmes by demonstrating the footprint reduction benefits that could be accomplished through collaboration and making these programmes easy, useful, and where possible, free. Regular communication and engagement with our business partners is also conducted through different channels.

Communication and engagement with business partners

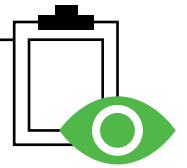


HKIA environmental e-newsletter

- A quarterly newsletter to share and promote environmental initiatives from both AAHK and our business partners, with an aim to make the airport community's environmental efforts more visible.

Airport Community Environmental Forum

- Bi-annual meeting to engage business partners in the development and implementation of environmental initiatives at HKIA. To keep abreast of the latest development in environmental issues, we regularly invite external speakers to attend the meeting and share their knowledge and experience with our business partners.



Third-party monitoring programme

- Introduced in 2019/20, the third-party monitoring programme offers a framework and a consistent approach for us to guide and engage with our business partners to minimise the environmental impacts related to their operations and ensure the implementation of mitigation and improvement measures.

Being a Low-carbon and Climate-resilient Airport

The impacts of climate change are being observed worldwide, with countries experiencing more frequent and intense extreme weather events, such as raised temperatures, extreme rainfall and rising sea levels. Given the location of HKIA and the criticality of its operations to Hong Kong and the neighbouring region, we recognise the importance of assessing, planning, and preparing for climate change and the impacts it can have on its operations and future development.

To combat climate change, countries, cities and organisations are making efforts to lower their GHG emissions and set targets to reach net zero emissions by the middle of this century or earlier. Recognising the goals of the Paris Agreement, we will significantly curb our emissions over the next 30 years and work collaboratively with our business partners to reduce AAHK's direct and indirect emissions to accelerate the transition of HKIA to a low-carbon and climate-resilient airport.

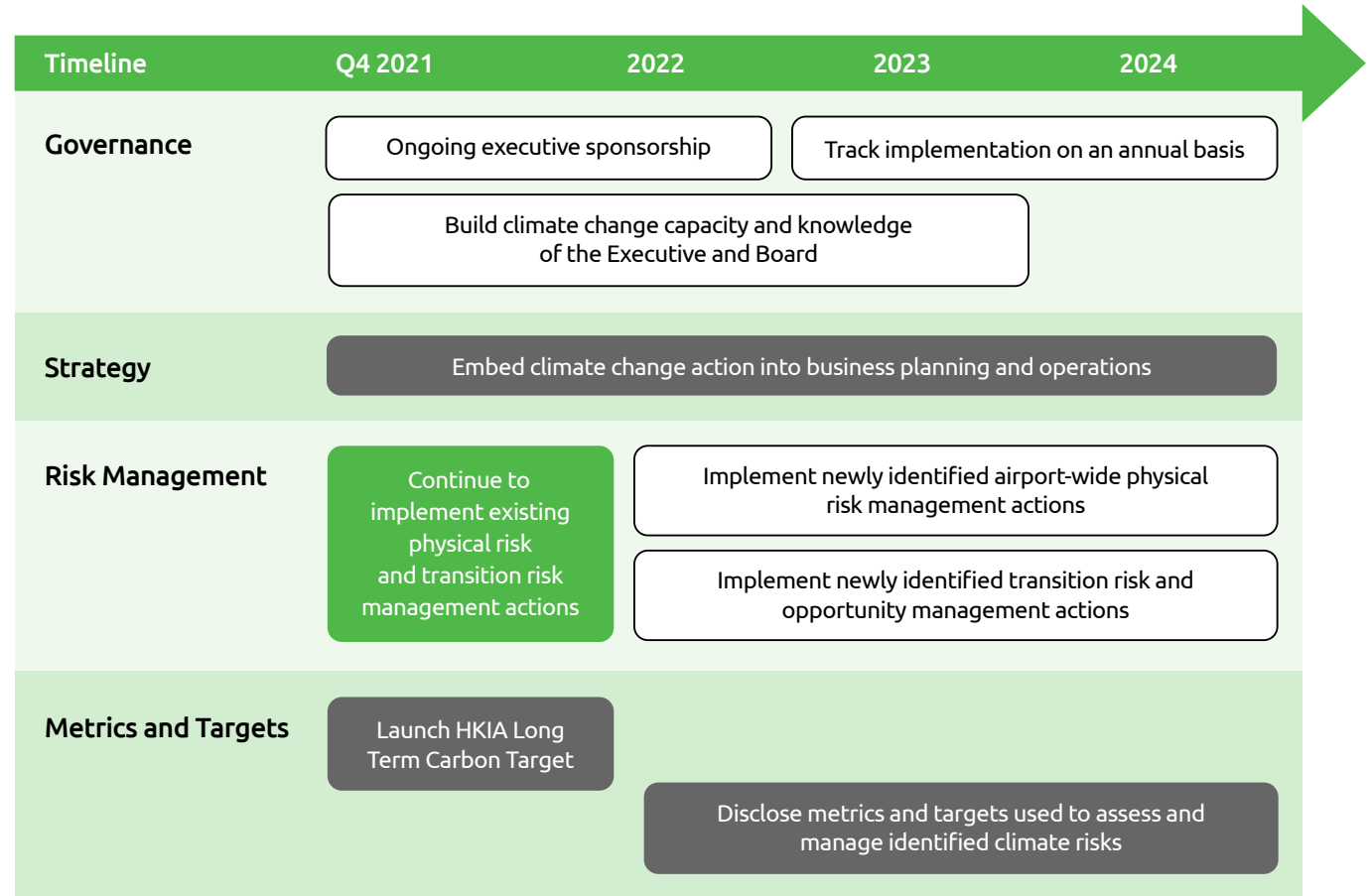
Our Approach

In 2019/20, we commenced two important strategic studies – the Climate Resilience Study and Long-term Carbon Target Study, to review and strengthen HKIA's operational resilience and adaptive capacity to a changing climate, as well as to determine a roadmap to net zero emissions by 2050 and a corresponding carbon management action plan. Both studies were overseen by interdisciplinary working groups and senior management.

Beginning with this sustainability report, we are reporting additional disclosures, aligned with the TCFD Recommendations, to provide our stakeholders with comparable and consistent information on how we are

tackling climate change and managing its associated risks and opportunities. Below is our summary of responses to the TCFD Recommendations; please refer to the [Task Force on Climate-related Financial Disclosures \(TCFD\) Statement](#) for the detailed disclosures.

AAHK's TCFD reporting and implementation roadmap



Governance and Risk Management

The BDC is tasked to assist the Board in looking after AAHK's sustainability strategy. At the senior management level, the Sustainability Executive Taskforce, chaired by CEO with Executive Directors as members, is responsible for driving and overseeing the progress of key sustainability initiatives and programmes, including the implementation of a carbon management action plan and climate adaptation and resilience plan. Our risk management and internal control systems assess, review, and address risks across the organisation, including climate-related risks.

For more details on our sustainability governance structure and sustainability-related risk management, please refer to the [Our Approach to Sustainability](#) section.

Climate-related Risks and Opportunities

As part of the Climate Resilience Study, we applied the consideration of four climate scenarios adopted from the Intergovernmental Panel on Climate Change (IPCC) Representative Concentration Pathways (RCP) to determine the types of climate-related risks and opportunities that might be relevant to AAHK and airport operations. The study also considered an additional sea level rise scenario (i.e., H++) that takes into account a higher possible rate of sea level rise.

Climate-related risks were identified under the relevant climate scenarios over a series of short, medium and long-term time horizons. For physical risks, these time horizons were 2030, 2050, and 2100. For transition risks, short, medium, and long-term horizons refer to risks and opportunities occurring within the next five years, between 5-10 years, and greater than 10 years, respectively. The analysis of climate-related risk against multiple time horizons supports improved understanding of the future performance of AAHK and is in line with the TCFD recommendations for scenario analysis.

Climate scenario	Temperature change (relative to 1986 – 2005)	Emissions trend
H++ – Accelerated sea level rise	N/A	Accelerated rates of sea level rise due to significant acceleration in the melting rate of land-based ice sheets of Antarctica and Greenland.
RCP8.5 – Business as usual	3.2 – 5.5°C	Continuing current carbon emissions to 2100 and beyond.
RCP6.0 – High-moderate transition	2.0 – 3.7°C	A moderate reduction in carbon emissions which peaks at around 2080, then reduces and stabilises at around 2100.
RCP4.5 – Low-moderate transition	1.7 – 3.2°C	A moderate reduction in carbon emissions which peaks at around 2045, then reduces and stabilises at around 2080.
RCP2.6 – Accelerated transition	0.9 – 2.3°C	A strong emissions reduction pathway which peaks around 2020 and then rapidly declines, reaching net zero emissions by 2070.

Physical risks

Key climate hazards were identified through a physical risk assessment to inform the identification of priority physical risks across critical asset classes. The table below presents risks with an inherent high risk rating in 2030. No extreme risks were identified prior to 2100.

Priority physical risks at 2030

Risk & impact	Response
<b data-bbox="136 563 383 592">Extreme weather events Increased occurrence and intensity of extreme weather events (e.g., typhoons, rainfall, lightning, and storm surge) may result in disruptions to airport operations and cause health and safety impacts on workers	We have controls in place to manage the risks associated with extreme weather events. These include an airport lightning warning system, a flight rescheduling control system, manuals and procedures to deal with extreme weather events, and shelters for respite from extreme weather.
<b data-bbox="136 782 237 810">Flooding Damage or complete failure of assets leading to operational disruptions and major works programme	The seawall and drainage system protect HKIA from flooding and sea level rise, and we have enhanced this response by undertaking an airport-wide drainage review and assessment, as well as a seawall study to assess the impacts of rainfall, storm surge, sea level rise and overtopping. Outputs from the studies will inform the implementation of related actions. In addition, we have preventative maintenance and other structural elements, including typhoon grade shutters. In the event of an emergency, we have an emergency power system and additional resources on call.
<b data-bbox="136 1058 282 1086">Sea level rise Inundation of drainage outfalls leading to increased incidence of flooding and overwhelmed drainage systems	We have enhanced this response by undertaking an airport-wide drainage review and assessment and a seawall study. We also conduct regular monitoring of sea level gauges and inspection of the drainage system.

Transition risks and opportunities

We reviewed policy documents, transport and energy market research, and conducted stakeholder engagement within AAHK and with business partners to identify the transition drivers and associated transition risks and opportunities. Transition drivers account for the actual or planned shifts in policy, market, and technology which could bring about risks and opportunities associated with the transition to a low-carbon economy. The table below provides a summary of the priority transition risks and opportunities.

Priority transition risks and opportunities

Transition driver	Risks & opportunities	Response
Policy and legal changes		
Global adoption of net-zero policies	<ul style="list-style-type: none"> • Ambitious targets for emissions reduction are set resulting in increased capital and operational expenditures 	<ul style="list-style-type: none"> • We have committed to achieve Net Zero Carbon by 2050, and implemented a Green Airport Design and Construction (GADC) Strategy.
Legal liabilities and regulatory approvals	<ul style="list-style-type: none"> • Future construction and expansion projects will be deemed incompatible with the Paris Agreement, resulting in regulatory approval delays or non-approvals • More stringent decarbonisation requirements are imposed as part of regulatory approvals for future capital projects and upgrades 	<ul style="list-style-type: none"> • We completed our Climate Resilience Study to identify and address climate-related risks. • We are exploring opportunities to embed more stringent carbon requirements in the design and construction of capital projects and establish a systematic approach to monitoring compliance with relevant standards and treaties.
Policy enacting carbon pricing mechanisms	<ul style="list-style-type: none"> • Increased expenditures associated with carbon pricing and purchase of carbon offsets • Carbon pricing will impact flight volumes and costs across aviation, resulting in reduced revenue • Opportunity to implement energy efficiency measures, resulting in mitigation of operational cost increases from increased energy cost or carbon pricing 	<ul style="list-style-type: none"> • We have established a watching brief on carbon pricing, emissions trading developments, and energy sector climate commitments and action plans to understand and anticipate future developments. • We have committed to achieve Net Zero Carbon by 2050, and implemented the GADC Strategy.
Statutory energy and emissions performance standards and reporting requirements	<ul style="list-style-type: none"> • Energy and emissions performance standards will result in increased capital expenditures to meet new requirements • Meeting energy and emissions performance standards which result in reduced operational expenditures • Demonstrating commitment and contribution to regional efforts to meet carbon neutrality targets, resulting in improved asset valuation 	<ul style="list-style-type: none"> • We have management systems to ensure our energy, legal and policy requirements are met. • HKIA is accredited by the ACI's Airport Carbon Accreditation and we aim to achieve Level 4 by leveraging the findings of our Long-term Carbon Target Study.

Priority transition risks and opportunities (continued)

Transition driver	Risks & opportunities	Response
Technology shifts		
Uptake of energy efficiency and low-carbon technologies	<ul style="list-style-type: none"> Adoption of technologies or investment in research and development that does not provide the expected value or benefit Investigation of new technologies to introduce low carbon products and services generates new forms of revenue Installation of new technologies to reduce energy use, emissions, and associated operational expenditures Access of new forms of capital targeted at new technology research, development and deployment 	<ul style="list-style-type: none"> We have robust business case processes for funding approval, including non-financial returns. We have automated numerous operations, rolled out an on-stand Ground Services Equipment (GSE) Pooling Scheme, and implemented energy reduction projects.
Transformation of air transportation through fuel switching	<ul style="list-style-type: none"> Adoption of sustainable aviation fuels and fuel delivery services, resulting in increased demand for airside services from airlines and increased revenues 	<ul style="list-style-type: none"> We are maintaining a watching brief over this driver and will work with airlines seeking to use sustainable aviation fuels to enable uptake.
Market shifts		
Shifting consumer preferences to travel and freight	<ul style="list-style-type: none"> Collaboration with domestic members of the GBA to generate increased domestic travel, resulting in increased revenues Accommodation of greater freight travel by air in response to consumer demand for international products, resulting increased revenues 	<ul style="list-style-type: none"> We are constructing the SPT and planning for additional City Terminals at strategic locations across the Pearl River Delta (PRD). In 2018/19, we established a pharma corridor with Brussels Airport and are accredited to handle temperature-controlled cargo. We are planning for the HKIA Logistics Park, which will include new cargo facilities and infrastructure.

Climate Mitigation Strategy and Key Initiatives

Given that our airport business partners contribute over 60% of HKIA's carbon footprint, we work closely with the airport community under an airport-wide approach to set targets, implement carbon reduction measures, and drive GHG emissions reduction. The HKIA Carbon Reduction Programme is a platform for the airport community to measure, reduce and report carbon emissions and share best practices. Since 2008, AAHK and our airport business partners have made two pledges to reduce HKIA's airport-wide carbon emissions. For details of the HKIA Carbon Reduction Programme, please refer to our [website](#).

In addition to the airport-wide approach, our climate mitigation strategy focuses on three areas: energy efficiency, clean transportation, and [green building](#). Within AAHK, energy consumption, in particular electricity, is the major contributor, accounting for over 90% of GHG emissions. We have established an ISO 50001-certified energy management system covering all terminal buildings. We have also been leveraging the latest technologies to drive improvements in energy performance, and hence reduce our own GHG emissions. For example, we have completed the installation of a cloud-based building analytics system for T1, T1M and T1S. The system utilises big data analytics to detect and diagnose potential equipment faults or operational irregularities, monitoring a variety of equipment parameters and terminal conditions in real-time. Its artificial intelligence (A.I.) engine can detect and determine the root cause of operational irregularities and make suggestions to improve energy efficiency.



Case Study: Innovative Energy Management Solutions

We have developed the Weather Forecast for Air-conditioning Control System (Weather FACTS) and Battery Energy Storage System (BESS) to enhance HKIA's energy efficiency.

Weather FACTS automatically collects hourly weather data, such as temperature, humidity, cloud amount, wind direction, wind speed and solar radiation, from the Hong Kong Observatory, and HKIA's own flight index, passenger flow and seawater temperature information. It employs big data and machine learning to forecast the cooling demand of T1 over the next 24 hours. Based on the forecast, the chiller system is set to deliver the appropriate amount of cooling volume needed, eliminating unnecessary energy consumption.

HKIA is the first airport in the world to adopt such a predictive control model for an air conditioning system. Together with the replacement of two

new 5,000-refrigerant tonne chillers in 2021, an estimated 5.1 gigawatt hours of electricity could be saved annually, which is equivalent to the annual energy consumption of nearly 1,200 CLP residential customers. The same system will be implemented in other passenger facilities, including the new T2C of the 3RS, to further optimise our energy efficiency.

We have also developed BESS to cope with HKIA's continued growth and need for a backup power supply. This is the largest battery storage system in Hong Kong, and contains over 400 lithium batteries, equivalent to more than 55,000 pieces of 10,000 mAh portable power banks. BESS, which operates without fuel, is more environmentally friendly than other existing backup generators and can efficiently store up electricity generated from routine testing of backup generators for future use, such as providing power in the event of an emergency.



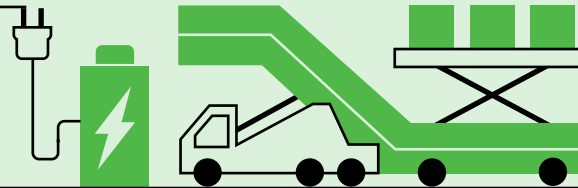
On clean transportation, we continue to increase the use of electric vehicles and GSE at HKIA through the implementation of the airside vehicle electrification programme and GSE Pooling Scheme. Besides, the Airportcity Link and the Airport Tung Chung Link, connecting the HKBCF Island with SKYCITY and Tung Chung town centre respectively, will be served by electric vehicles and ultimately an autonomous transportation system supported by zero-emission autonomous vehicles.



Case Study: Updates on the Ground Services Equipment Pooling Scheme

In 2018, we introduced the GSE Pooling Scheme which centralises the deployment of GSE to optimise and expedite the allocation and maintenance arrangements for the equipment. The first phase, covering over 250 units of critical GSE operating at the Midfield Apron, led to an improvement in air quality and reduction of GHG emissions at HKIA as 95% of the GSE are powered by electricity. The scheme was recognised with a Gold Recognition in the 'Over 25 million passengers per annum' category at the ACI Asia-Pacific Green Airports Recognition 2021. Commencing in April 2022, the second phase of the Scheme will cover the apron area of T1 and ultimately increase the size of GSE fleet to 580.

95% of the GSE
are electric-powered



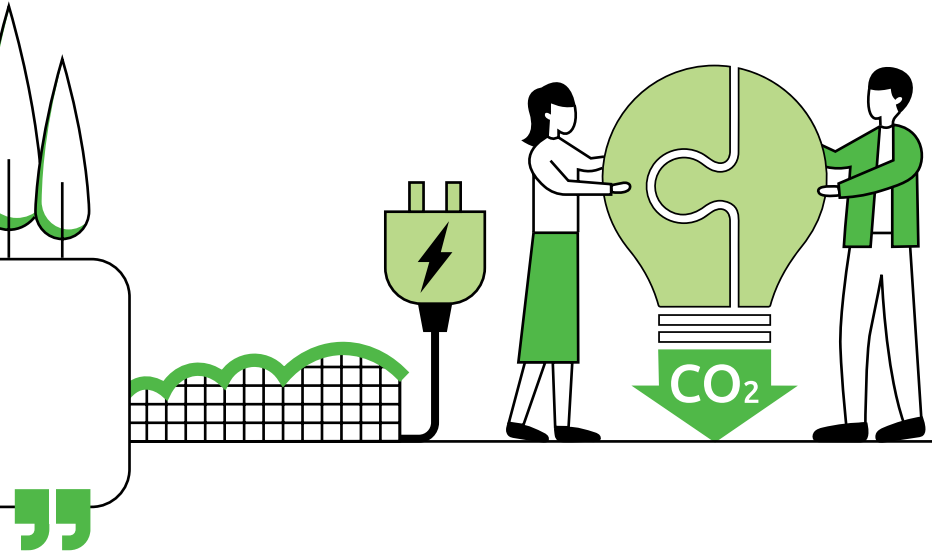
Metrics and Targets

New carbon reduction target

In Q1 2021/22, our Long-term Carbon Target Study concluded with a recommended target that aligns with the IPCC 1.5°C scenario, the HKSAR Government's 2050 carbon neutrality target and the ACI Long Term Carbon Goal of Net Zero Carbon by 2050.



AAHK and its key aviation-related business partners commit to achieve Net Zero Carbon by 2050, with a midpoint target of 55% absolute emissions reduction by 2035 from a 2018 baseline.



To achieve the proposed midpoint target, we have established a carbon management action plan covering the following key focus areas:

- Reduction of Scope 1 emissions through electrification of the fleet, introduction of renewable diesel and adoption of low global warming potential refrigerants.
- Reduction of Scope 2 emissions through ongoing implementation of energy efficiency initiatives, review of opportunities relating to onsite renewables and inclusion of additional carbon and energy-related aspects into the GADC Strategy. We will also work with our business partners to innovate and pilot new technologies collaboratively, sharing the findings with the airport community to scale up energy efficiencies.

- Launch of a capacity building programme for our business partners to build essential skills and knowledge in carbon management, with an aim of reducing their Scope 1 and Scope 2 emissions (also known as AAHK's Scope 3 emissions).
- Achievement of the ACI's Airport Carbon Accreditation Level 4 'Transformation', which recognises airports that align their objectives with the Paris Agreement.

Our performance

In 2019, our airport-wide carbon emissions remained steady, while the carbon intensity increased compared with 2018. This was mainly due to reduced workload units resulting from lower passenger traffic and cargo

throughput, caused by the social unrest in Hong Kong and an international trade dispute in 2019. It is noted that 2019 and 2020 were exceptional years for HKIA as a result of social unrest and COVID-19 respectively. The carbon emissions over the past two years do not reflect the performance of the airport during normal operation. In 2020, the electricity consumption and GHG emissions from AAHK's operations and facilities were around 218 million kWh and over 82,000 tonnes of CO₂e. HKIA's airport-wide GHG emissions in 2020 were around 340,000 tonnes of CO₂e. Performance data for the previous calendar year is available in [Performance Data](#).

Design and Building a Green Airport

Sustainability and environmental considerations are an integral part of our strategy for developing and expanding HKIA. In support of our pledge to make HKIA the world's greenest airport, we are committed to ensuring that environmental impacts are managed and, whenever possible, minimised at all stages of development projects. We also strive to adopt environmental best practices and innovative solutions in the design and construction of airport buildings and facilities.

Our Approach

Green design features were adopted when HKIA was first built. In developing HKIA into a 3RS, we have established a Green Airport Design Strategy to ensure priority is consistently and systematically placed on considering environmental and green design elements as early as possible in project development, and that these elements are implemented in following works.

To enhance the credibility of our efforts in green design and construction, we have also been voluntarily pursuing third-party green building certification for major developments at the airport.



Hong Kong Green Building Council's BEAM Plus*

- **T2 Expansion Works** – Provisional Platinum
- **Sky Bridge** – Provisional Gold
- **HKIA Tower 2** – Provisional Gold



Civil Engineering Environmental Quality Assessment and Award Scheme (CEEQUAL)^

- **Third Runway and associated works contract** – Excellent rating

* BEAM Plus is a well-recognised green buildings assessment scheme in Hong Kong

^ CEEQUAL is an international evidence-based sustainability assessment, rating and award scheme for civil engineering, infrastructure, landscaping and public realm projects



Case Study: Terminal 2 Expansion Works – A BEAM Plus Platinum Project

As part of the 3RS Project, the original T2 will be expanded to provide full-fledged terminal services, serving departure, arrival and transfer operations. The expanded T2 will consist of an eight-level Main Building, and North and South Annex Buildings with seven levels and four levels respectively. The T2 Expansion Works project is an example of our commitment to best practices and innovation in green building and construction. The expanded T2 has been designed as an exemplary sustainable building and the project has attained the Provisional Platinum rating under BEAM Plus, the highest rating under the scheme.

At the beginning of the project, the design consultant was required to conduct benchmarking studies to review and evaluate existing green design practices at HKIA and overseas airports, so as to identify and incorporate possible green design elements into the scheme design. The proposed green design measures were further investigated at the detailed design stage before being incorporated into the design. Confirmed green measures were then implemented and tracked throughout the construction and operation phases of the project. Green design features adopted in the T2 Expansion project include:



Adoption of a combination of passive design strategies and low-energy active design techniques



Installation of photovoltaic panels as part of the roof design to offset energy consumption



Optimised greenery that takes into account the need to control any increased risk of bird hazards



Use of low-emitting materials for improved indoor air quality



Use of high energy-performance glazing, wall and roof materials on the façades to provide improved thermal insulation



Use of low-flow sanitary fittings and a water leakage detection system to reduce potable water consumption



Reuse of structures of the existing building as far as practicable

Airport-wide Green Airport Design and Construction Strategy

With the achievements obtained from the 3RS Green Airport Design Strategy, we have taken the further step of formulating the airport-wide GADC Strategy to implement a consistent approach for embedding green design and sustainable construction considerations in AAHK's other development projects, including those developed via partnership agreement with franchisees and other business partners. Through this new GADC Strategy, we aim to ensure that sustainability performance will always be central to any construction projects at HKIA, particularly at the early design stage.

Under the GADC Strategy, design consultants for eligible projects are required to identify opportunities for environmental efficiencies at the scheme design stage; considerations may extend to improving energy efficiency to minimise air pollutants and carbon emissions, taking into account the associated life cycle benefits. All measures identified are then further evaluated at the detailed design stage with environmental benefits and efficiencies quantified where possible to facilitate informed decisions on adopting initiatives. When adopted, the initiatives will then be embedded into works packages and tracked through the construction and works stages.

The implementation of the new GADC Strategy commenced in July 2021, with an initial two-year trial period. A Technical Advisory Group, comprising experienced project managers and green design professionals from relevant departments, was formed to facilitate its implementation.



Managing our Waste

Waste is one of the most pressing environmental issues in Hong Kong. The three existing landfills in Hong Kong are expected to be filled up one by one in the coming years. The HKSAR Government has set out in its *Waste Blueprint for Hong Kong 2035* to promote the gradual development of a circular economy and progressively move away from reliance on landfilling for waste disposal.

Our Impacts and Performance

Waste generated at HKIA includes a broad range of solid waste streams from aircraft servicing, shops, restaurants and catering outlets in terminals, and passenger activities. Most shops, restaurants and catering outlets in the terminals suspended operations over the year due to the significant drop in passenger volume caused by the COVID-19 pandemic. Our waste performance was also heavily impacted. In 2020, over 6,900 tonnes of waste were sent to landfill from HKIA and around 860 tonnes of recyclables were collected, only one-third or one-fourth of the normal level in previous years. Our overall recycling rate in 2020 was about 11.0%.

~11.0%
recycling rate
in 2020



In 2013, we set a target of reducing/ recycling/ recovering 50% of waste generated at HKIA by 2021 and pursued this target by taking into consideration of the Government's planned implementation of the Municipal Solid Waste Charging Scheme. However, a combination of factors, including the delay in the Municipal Solid Waste Charging Scheme, the introduction of Mainland China's National Sword Policy in 2018, and the impact of COVID-19 since early 2020, has prevented the achievement of the waste target by 2021.

New Waste Target

In view of the Government's updated strategy of developing a circular economy and planned new waste-to-resources and Waste-to-Energy infrastructure, we have reformulated a new HKIA recyclables recovery rate in effect from 2021 and set a new target to better reflect our commitment and efforts in increasing our capability to capture recyclables.

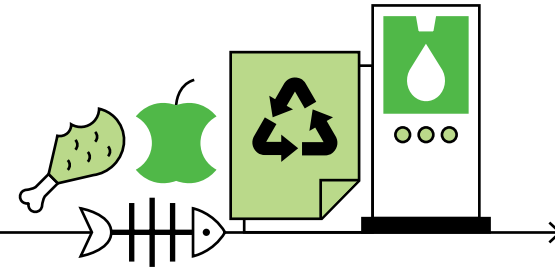


To increase the recyclables recovery rate by 25% by 2025 compared to a 2018 baseline.



Our Approach and Key Initiatives

To support our new waste target, we continue to adopt the three-pronged approach to waste management with an increasing focus on strengthening our ability to separate recyclables at source and post-disposal sorting to salvage conventional and new types of valuable recyclables.



Waste Reduction at Source

- Digitalisation of internal procedures, such as the implementation of an eBCR to reconcile baggage loaded onto each aircraft. The eBCR enables staff to file digital reports using tablets, which are automatically sent to the airlines, ramp handling agents and Baggage Management Office, without the need to fill out and submit paper reports manually. Up to 500,000 pieces of paper could be saved per year.
- Following the completion of installation of hand dryers at HKIA Tower, an additional 14 hand dryers were installed at the HKIA Commercial Building in 2020/21. Renovation of 108 washrooms in the passenger terminals, including the installation of additional 570 hand dryers, will also be completed by 2021 to further encourage the use of less paper towels.
- 39 additional water dispensers will be installed across the passenger terminals and concourse by 2022, allowing passengers to refill their water bottles and hence to reduce the use of single-use plastic bottles.

Alternative Disposal Options

- Funded by the HKIA Environmental Fund, the Hong Kong Polytechnic University continued its second study on the transformation of starch-rich food and paper towel waste at HKIA into value-added chemicals. In addition to the development of a prototype reactor facilitating field demonstrations of the valorisation process, the study will also examine the recyclability of low-value solid residues, the life-cycle environmental impact and its economic viability. It also aims to support the development of the local recycling industry and Hong Kong's circular economy.

Facilitation of Recycling

- Completion of a one-month trial using an A.I. robotic waste sorter system at T1M in March 2021. The system uses cutting-edge technology to identify and separate recyclables from various mixed waste and co-mingled recycled streams collected at HKIA. The trial tested the capabilities, efficiency and limitations of the system with the results helping us to optimise HKIA's future waste separation and recycling performance.
- Introduction of an enhanced recycling performance bonus scheme, with the provision of progressive financial incentives and penalties, in the latest waste management contract to encourage the waste contractor to improve the recovery of recyclables.
- Provision of free recycling bags to facilitate our tenants to implement waste separation at source and collect recyclables such as paper, plastic, metal, glass and food waste in their shop premises. These recycling bags are printed with a unique code which enables us to improve the collection of recyclables by tracking and following up on any instances of misuse of the bags.
- Continuation of the HKIA Food Waste Recycling Programme and HKIA Food Rescue Programme during the epidemic. In 2020, over 740 tonnes of food waste and over 80 tonnes of surplus food were collected at HKIA and our airport business partners.

Conserving and Enhancing Ecology

Situated off the northern coast of Lantau Island, HKIA's surrounding marine and terrestrial environments have a rich ecology with diverse habitats and several species of notable ecological value, in particular the Chinese White Dolphin (CWD), recognised as vulnerable on the International Union for the Conservation of Nature and Natural Resources (IUCN) Red List of Threatened Species.

Our Management Approach

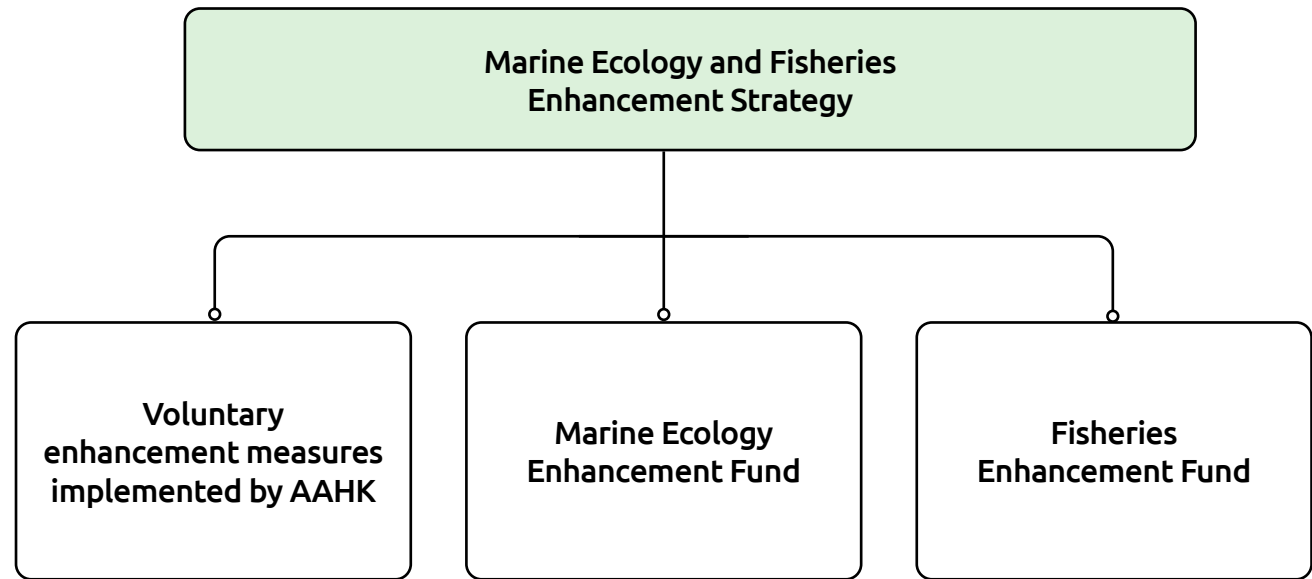
We recognise our responsibility to avoid and minimise adverse impacts on ecology and biodiversity relating to the operation and development of HKIA. We also have a duty of care to ensure that our activities do not harm the important ecological assets on or near HKIA.

The 3RS Project, in particular the formation of about 650 hectares of land, was anticipated to have significant environmental impacts on marine ecology. The 3RS EIA included a very thorough assessment of marine ecological issues, including those relevant to CWDs, and recommended a comprehensive and wide range of measures to ensure that identified potential impacts, including those on CWDs, are avoided, minimised and mitigated to an acceptable level during construction and operation phases of the 3RS Project. All commitments from the 3RS EIA and Environmental Permit have been implemented effectively during the course of land formation, which is largely completed.

As the marine works for the 3RS Project wind down, our focus has pivoted towards initiatives and commitments intended to enhance marine ecology and fisheries under the umbrella of our Marine Ecology and Fisheries Enhancement Strategy.

Fisheries Enhancement Strategy. These comprise voluntary initiatives beyond statutory requirements that are implemented by AAHK, and a range of initiatives supported by the MEEF and FEF.

Marine Ecology and Fisheries Enhancement Strategy

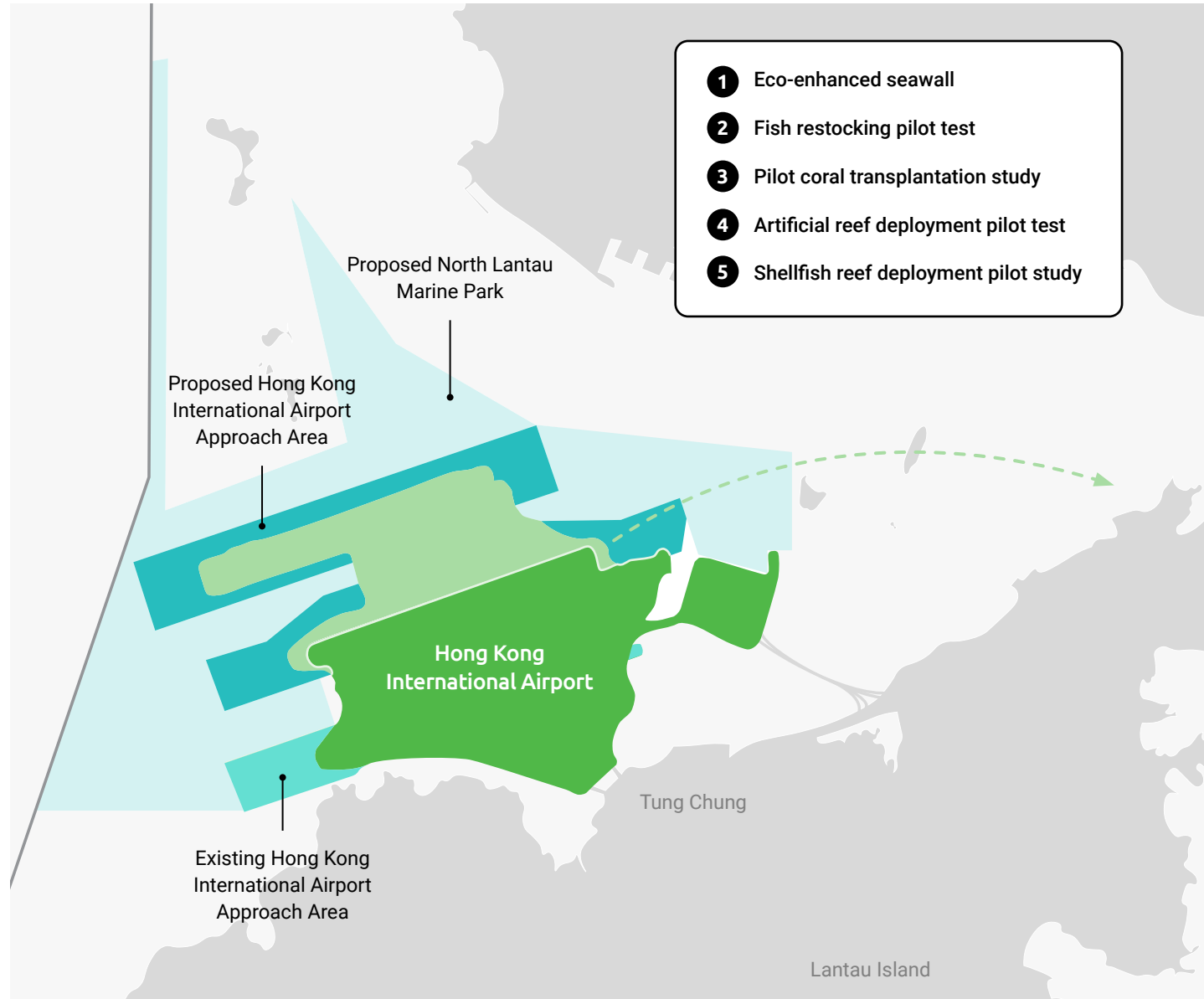


Marine Ecology and Habitats Protection and Enhancement Measures

Proposed North Lantau Marine Park

In recent years, we have consulted various stakeholders on the development of the design and management plan of the proposed North Lantau Marine Park (NLMP). The NLMP will connect with the adjacent marine parks to form a combined marine park matrix of about 4,500 hectares. As part of the management plan, SMART* goals have been developed for tracking CWD abundance and density in Northwest Lantau waters and Northeast Lantau waters during the first six years after the designation of the NLMP. In October 2020, we consulted and obtained the in-principle support of the Country and Marine Parks Board on the marine park designation proposal. Following the consultations, the Agriculture, Fisheries and Conservation Department has been taking forward the statutory procedures in accordance with the Marine Parks Ordinance (Cap. 476) for the designation of the proposed NLMP to dovetail with the commissioning of the 3RS project in 2024.

* SMART refers to the five principles of Specific, Measurable, Achievable, Results-focused and Time-bound goal-setting



Voluntary Enhancement Measures

We have been working on several marine ecology and fisheries enhancement projects in Lantau waters on a voluntary basis. These include the installation and monitoring of ecologically enhanced sections of the new seawall, a phased fish restocking exercise and a pilot coral transplantation study. We have commenced two further pilot projects over the year:



Artificial reef (AR) deployment pilot test

- About 100 units of AR were deployed in waters to the west of HKIA's South Runway in June and July 2021. The ARs deployment serves as a pilot scheme to investigate the value of providing micro-marine habitats for enhancing marine ecology and fisheries resources in the vicinity of the proposed NLMP and its surrounding waters. The findings of this pilot scheme will be studied for the potential additional deployments of ARs in North Lantau waters.



Shellfish reef deployment pilot study

- In partnership with The Nature Conservancy and the University of Hong Kong, we have deployed oyster reefs, using a combination of limestone, recycled shells and live oysters, along a northeastern section of the 3RS's newly formed seawall. This pilot aims to recreate a natural habitat that is expected to promote proliferation of shellfish and other marine life in the area.

Fisheries Enhancement Fund and Marine Ecology Enhancement Fund

In late 2016, we established the FEF and MEEF with a total budget of HK\$400 million, aiming to enhance the marine environment, ecology and fisheries resources. In 2020/21, the MEEF and the FEF granted a total of HK\$13.3M to 13 projects for the 12-month period from 1 July 2020 to 30 June 2021.

Granted **>HK\$55M**
since late 2016
(as of August 2021)



Pearl Farming Pilot Project

- A three-year project funded in 2017 to explore livelihood transitioning and study pearl cultivation in Hong Kong. Around 12,000 pearl-planted oysters were cultivated in the Sum Wan Tsai area of Sai Kung and about 8,300 pearls were harvested upon the completion of the project in 2020. A follow-on project was funded in 2020/21 which included cultivation of another batch of 20,000 pearl oysters and exploration of market and business opportunities for locally produced pearls, sharing of pearl farming knowledge with the industry, and promotion of ecotourism to instil environmental awareness.



Organic Marine Aquaculture Development Pilot Project

- A suitable fish culture zone will be selected for combined cultivation of two bivalves species with one fish species and a seaweed. This project will develop the first locally accredited fish farm for organic aquaculture and accredited organic seafood products. By facilitating a transformation of the industry to high-value seafood products, we aim to enhance the industry, create business opportunities, and satisfy the needs of customers.



Value of peri-urban and small-scale mangrove forests in the Pearl River estuary as fish habitats

- A multi-year project to assess the value of peri-urban small-scale mangrove forests in the Pearl River estuary (PRE) as the habitat for juvenile fish and to understand the importance of mangrove forest structural complexity to support juvenile fish use of the habitat. The project findings will be used for considering ecologically sound options for the management and restoration of mangrove habitats in the PRE.





Case Study: In-To Tung Chung River Project

The In-To Tung Chung River (TCR) Project was a three-year project initiated by a local green group, Green Power, in 2018 with the support of the HKIA Environmental Fund. The project aimed to conserve the biodiversity of the TCR catchment area through regular water quality and ecological monitoring, and public engagement programmes. Members of the public were trained to become Citizen Scientists and help build up an ecological database of the TCR. Additionally, the public was able to explore the ecology of the TCR through guided tours and workshops.

390 Citizen Scientists
were trained

~150 species
were recorded



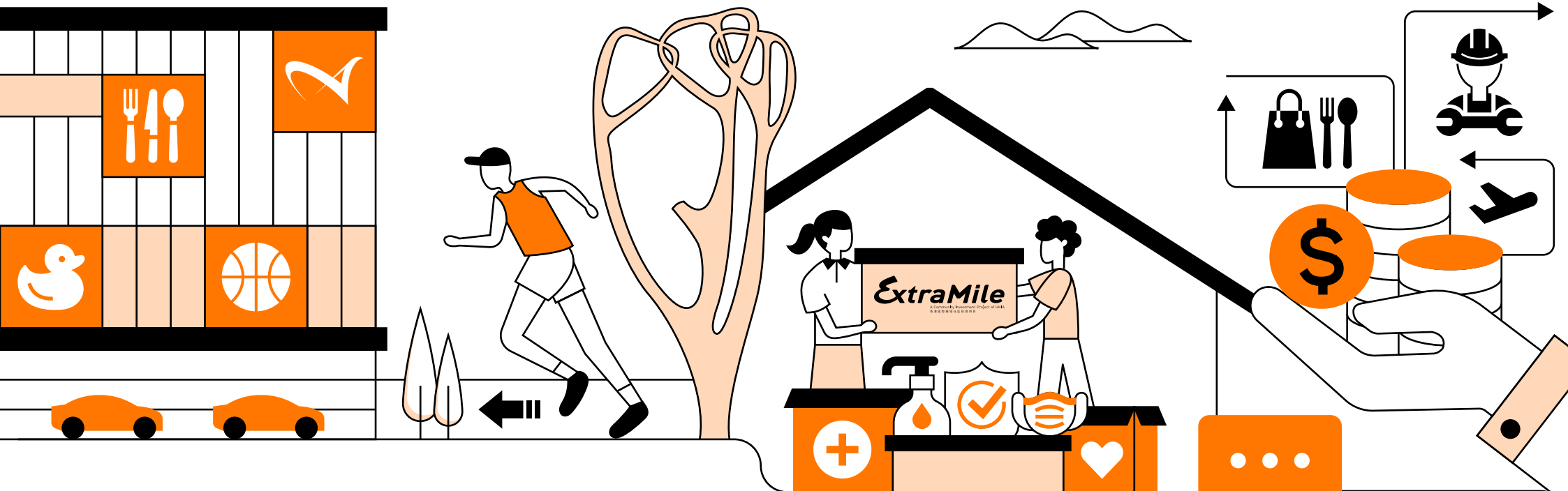
Another focus of the project was to set up an exchange platform between the public and the Government to facilitate public understanding of river conservation. Public opinions were solicited on issues such as the setting-up of a new Tung Chung River Park as part of the Tung Chung New Town Extension Project. A virtual closing ceremony was held in March 2021 to mark the completion of the project.

In April 2021, with the continued support of the HKIA Environmental Fund, Phase 2 of the project commenced to carry on the research and monitoring of ecological resources and water quality of the TCR catchment area.

The HKIA Environmental Fund was set up by AAHK to provide funding support for projects, activities and

initiatives that promote environmental protection, green living, and a sustainable lifestyle in Hong Kong. Over HK\$20 million was granted to 18 projects that contribute to the betterment of the airport and the nearby community since its establishment in 2011.





Community

Despite COVID-19, we continued our efforts to attract and nurture talent for the aviation industry and promote the well-being of airport staff through facilities enhancement. We have also introduced relief measures to help the airport community get through these difficult times.



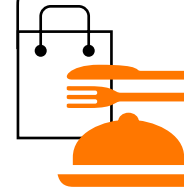
Supporting the Airport Community during COVID-19

The dramatic drop in demand for passenger traffic due to the COVID-19 pandemic and containment measures is threatening the survival of many businesses in the aviation industry as well as those which have operations in airports. In response to these unprecedented challenges, we introduced several rounds of relief measures amounting to HK\$4,662 million in 2020/21 to support the airport community.



Aviation Industry

- Bulk purchase of air tickets in advance from Hong Kong-based carriers to inject liquidity to support airlines' upfront operation in Hong Kong and stimulate air traffic in future aviation recovery.
- Procurement of GSE from aviation support services operators and settling the payment upfront in cash to improve the cash flow of operators, allowing them to use the equipment rent-free for an initial period after the sales.
- Full waiver of airbridge fees and parking charges for idle passenger aircraft.
- Full waiver of aircraft ramp handling charges and line aircraft maintenance charges.
- Reduction of passenger aircraft landing charges and fees related to aircraft base maintenance and airside vehicles.
- Rental reduction for terminal tenants covering lounges and offices.
- Fee waiver for terminal licencees including ancillary passenger services, commercial services counters and cross-border transport operators.
- Concessions on fees for aviation support services such as into-plane fuelling, aircraft maintenance and inflight catering services.



Retail and Catering Tenants

- Waiver of rent for shops and restaurants in the terminal which have suspended business.
- Waiver of base rent for those that remain open to provide essential services.



Airport Staff

- Roll-out of the Airport Training Allowance Programme to support airport staff on unpaid leave during the pandemic. HK\$66 million was disbursed for 70,300 applications between April and October 2020.

Nurturing Aviation Professionals

Over the past year, HKIAA, a member company of HKIA Services Holdings Limited which is a subsidiary of AAHK, continued to offer a comprehensive aviation-related curriculum, with an aim to establish Hong Kong's position as a regional civil aviation training hub that will support the sustainable growth of the aviation industry. In addition, we also organised virtual job fairs and webinars to promote job opportunities and careers in the aviation industry and to attract new recruits.

Hong Kong International Aviation Academy

The COVID-19 pandemic has forced the suspension of most face-to-face training activities, and therefore many of HKIAA's programmes have switched to a virtual format. In 2020/21, HKIAA was able to deliver 1,350 courses to some 41,500 participants.

and job functions in the aviation industry through a series of talks and sharing sessions. Participants were also able to go behind the scenes with virtual HKIA site visits to a variety of locations and job functions. This free-of-charge online day camp attracted over 230 participants.

HKIAA has further expanded its curricula by launching the 15-month part-time Professional Diploma in Aviation Management in September 2020. Targeting industry practitioners looking to receive accredited qualifications, this programme covers a wide variety of aviation management roles and integrates management concepts into work applications. Graduates will receive a recognised qualification equivalent to the Hong Kong Qualification Framework Level 4, leading to a Bachelor's degree.

We will continue to expand and improve HKIAA facilities, including an expanded campus inside the new HKIA Community Building. We are also planning to develop a new campus and dormitory for the HKIAA on the HKBCF Island.



>500 job openings
Attracted
>20,000 people

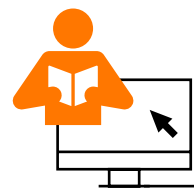
First HKIA Virtual Job Fair

We held the first HKIA Virtual Job Fair in November 2020, providing over 500 job openings at 26 companies across the airport community. After a free registration, participants were able to visit the virtual booths of participating companies online, browse vacancies and chat online with company representatives directly for job applications and interview arrangements. Over 20,000 job seekers visited the two-day virtual job fair.

We also organised two physical job fairs in July 2020 and March 2021, when the pandemic began to subside and the social distance restrictions had been relaxed. Over 1,400 job opportunities, covering different airport functions related to the construction works of the 3RS Project and other airport development projects, were offered.

HKIA Educational Webinars and Virtual Airport Tour

In light of COVID-19, we have conducted regular airport visits for schools in an online format. This new approach allows students to get the latest updates about HKIA via webinar, followed by a virtual airport tour to get an up-close look at the key facilities and features at HKIA.



Delivered
1,350 courses
41,500 participants

In August 2020, HKIAA moved its annual summer day camp at HKIA to virtual, organising the 'HKIA@Your Fingertips – Online Summer Day Camp'. With the theme 'Between Takeoff and Landing', the online camp gave participants a comprehensive look at various professionals



Promoting the Well-being of Airport Staff

We have been implementing different initiatives to promote the well-being and work-life balance of staff working at HKIA. These include the establishment of [Hong Kong International Airport Recreation and Community Engagement](#) and the opening of [Airport Preschool](#) in 2017. In 2020/21, we finished renovating the Airport Trail, HKIA Historical Garden and Ancient Kiln Park. With the completion of the HKIA Community Building, additional recreational facilities will be offered to airport staff.

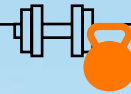
HKIA Community Building

The soon-to-be-completed HKIA Community Building, which stands right next to T1, will provide additional dining facilities such as a staff cafeteria and Chinese restaurant, which in total could accommodate about 600 people. This new building will be equipped with new recreational facilities including a basketball court, gym room, yoga studio and relaxation room for airport staff, and a second Airport Preschool.



Case Study: Revamp of Airport Trail

First opened in 2006, the Airport Trail has undergone a major revamp and was extended from 2.3 km to a sprawling 7.1 km. The trail is highly accessible, connecting the terminal area with Tung Chung and some of the office buildings on the airport island. Along the trail, people can stop at the Ancient Kiln Park and the refurbished HKIA Historical Garden with terrazzo benches, a gym with fitness equipment and a yoga area.



Iconic gym area designed by an Italian outdoor fitness equipment manufacturer



A 36m² yoga platform



A tree-like structure with a pull-up bar and gymnastics rings



A mobile app with professional training instructions is available for download



Community Investment



To contribute to the social and economic growth of Hong Kong, in particular Lantau and other neighbouring communities, by nurturing talent, realising the potential of individuals, and encouraging participation in aviation-related industries.



EXTRA MILE Project

Based on our community investment vision, we launched our flagship EXTRA MILE project in 2018. The project provides a collective platform for us and participating business partners to attract and retain talent for the airport community by investing in and unleashing the potential of three specific target groups – working youths, non-Chinese speakers and airport staff with children through the three different programmes – Working Holiday@Lantau, The Pioneer and EduCare.

While we continued to implement the EXTRA MILE project amid the challenges posed by the COVID-19 pandemic, different measures and initiatives were rolled-out to provide support to the participants and enrich their experience. These included:

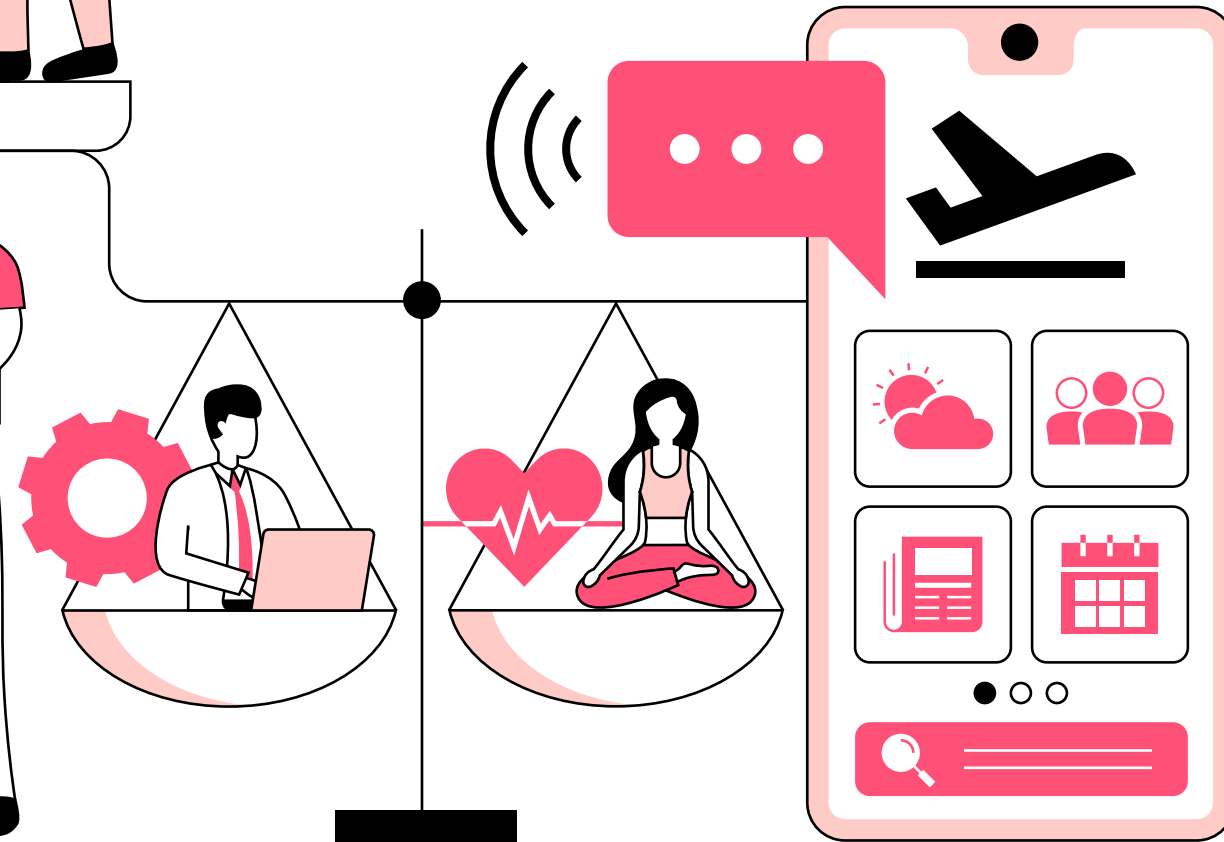
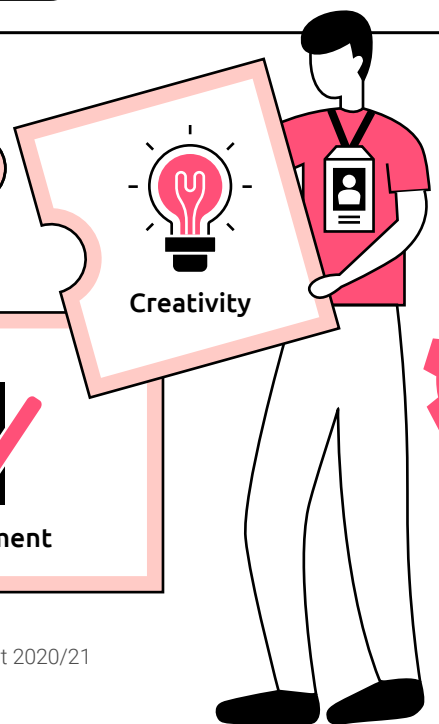
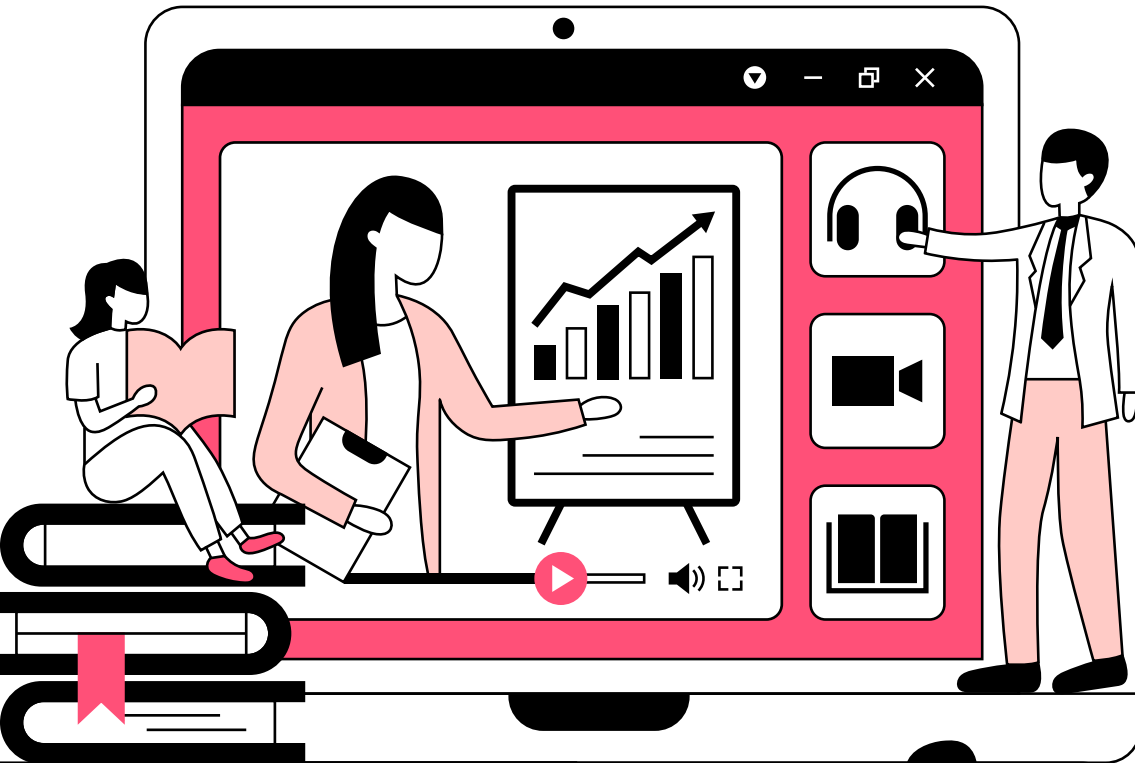
- From May to June 2020, over 40 participants from Working Holiday@Lantau and The Pioneer programmes acted as ambassadors to pay visits to about 280 households of the elderly and people in need in Tung Chung, and distributed packages containing face masks, personal hygiene products, cleaning products and food essentials. In July 2020, another group of eight ambassadors paid a visit to over 120 households of participants in the EduCare programme and their families.
- We worked with our community partners to organise online workshops which enabled the EXTRA MILE project participants to explore their interests and to prepare for future opportunities following the pandemic.
- Financial incentives were offered to all active participants of the Working Holiday@Lantau and The Pioneer programmes to enrol in work-related courses such as Mandarin, as well as interest courses like diving and dancing.





Our People

The outbreak of COVID-19 has presented a pressing need to safeguard the health and well-being of our employees and adopt innovative approaches to keep them engaged and connected, while not losing sight of the importance of developing a professional team to meet the visionary development of HKIA.



Building and Developing our Workforce

Despite the economic downturn caused by the COVID-19 pandemic, growing a professional team and looking for new talents remains crucial to supporting our 10-year Airport City development blueprint.

Recruiting Talents

In 2020/21, we expanded our talent acquisition approach to include online initiatives to ensure the effectiveness of recruitment and manpower deployment amid the pandemic. For example, we took part in a virtual career fair hosted by a local university in April 2020 to reach out to potential talents. This was followed by the implementation of a mobile-friendly e-Recruitment System in September 2020 to enhance both the preboarding and onboarding experience of new recruits. Through this system, new recruits not only receive useful and comprehensive information to get them prepared before joining AAHK, but also enjoy an enhanced onboarding experience achieved by reducing human resource-related formalities on their reporting day, making them feel welcomed, excited and part of AAHK family. The system also enables the automation of our communication with new recruits and other parts of the recruitment processes to improve our efficiency. For recruitment interviews, we adopted a hybrid approach using video conferences, and returning to in-person interviews when the pandemic situation improved.

Attracting and Developing Young Talent

We continued to grow our talent pipeline through our Management Trainee Programme, Graduate Engineer Programme and Summer Internship Programme.



Management Trainee Programme

- Develops management trainees into future leaders
- A three-year programme with rotations in core departments, participation in cross-functional projects and assignments, and functional and leadership training

Graduate Engineer Programme

- Develops home-grown professional engineers with specific airport-related skills and experience
- A Scheme 'A' programme accredited by the Hong Kong Institution of Engineers

Summer Internship Programme

- An eight-week programme for students to experience AAHK's unique working environment
- Interns of high calibre with outstanding performance will be selected for direct entry to the Assessment Centre of AAHK Management Trainee Programme and Graduate Engineer Programme selection
- 76 students from local and overseas universities and institutions joined the programme in 2020, gaining hands-on experience in airport operations. In August 2020, the Virtual Project Presentation and Programme Completion Ceremony was held and attended by guests from local universities, AAHK's senior management, and the interns' supervisors.

Strengthening Leadership Development

Our organisation-wide talent review and succession planning process regularly assesses AAHK's leadership bench strength and development plans for key individuals and high potentials. In 2020/21, we completed a 12-month Leadership Development Programme for middle managers and introduced a modular leadership development programme to junior managers. For senior managers, a newly designed executive development programme commenced in March 2021.



Case Study: Leadership Development Programme for Middle Managers

Airport management requires professional expertise and knowledge. As the operator of the only airport in Hong Kong, we must expand our leadership talent pool, particularly at the middle manager level, and develop them to take up future senior management positions. To this end, we launched a 12-month Leadership Development Programme for high-potential middle managers in August 2019, participated by 20 managerial staff from 15 departments. The programme aims to equip potential leaders with the essential skills, knowledge, experience and exposure to succeed in a leadership role. Key components of the programme included:



1. In-depth training needs analysis

A series of in-depth interviews with all Executive Directors in AAHK was arranged to explore the development needs of middle managers to design the training programme.



2. Development centre and individual development plan

A series of competency assessments, designed with reference to AAHK Leadership Competency Model was arranged, including a Development Centre, 360-degree feedback survey and psychometric test. Through these exercises, individuals' strengths and areas for development were identified, providing insight for participants to devise tailor-made development plans.



3. Formal leadership training

Three two-day training modules were designed to strengthen participants' leadership competencies.



4. Individual executive coaching

After the completion of each training module, individual coaching sessions were arranged for the consultant to provide feedback to each participant.



5. Action Learning Project

Participants were divided into teams to embark on an action learning project which required them to handle real business issues by applying what they have learnt in this programme. Each team was assigned a project sponsor at the Executive Director level and a project coach at the Assistant General Manager level to support them on the action learning project.



The year-long programme completed in July 2020 as participants presented their action learning projects and shared their experiences to AAHK's senior management.

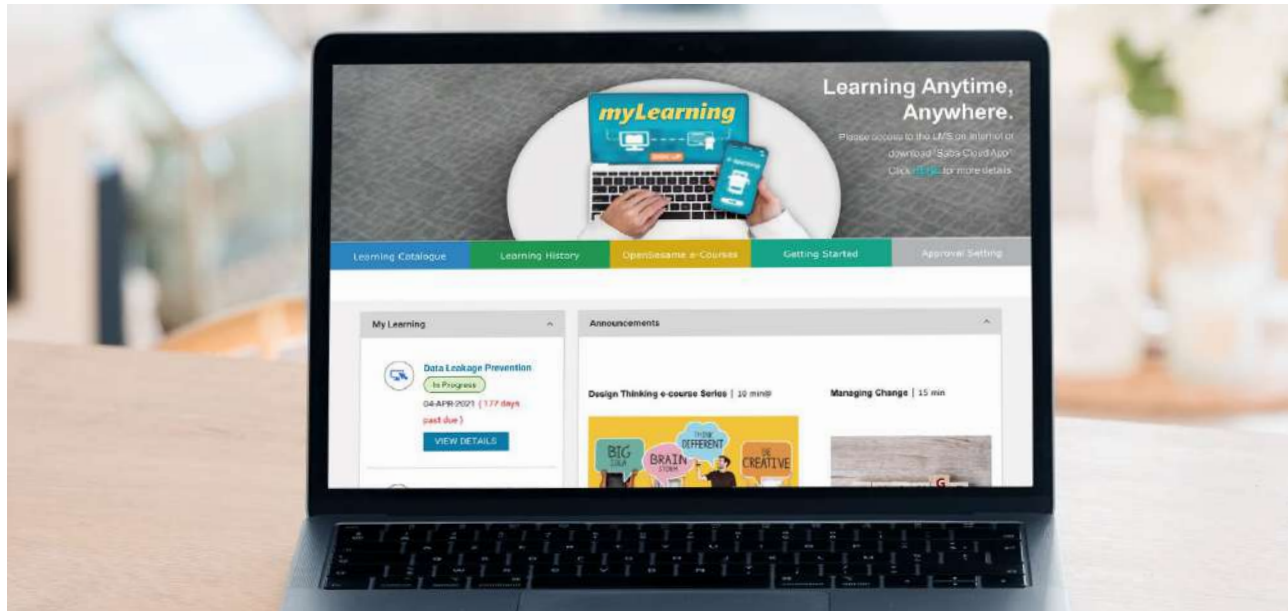
Fostering a Culture of Continuous Learning

We are committed to providing training and development opportunities for our employees to equip them with the skills and knowledge required for better job performance and career development. Three types of training are regularly arranged, namely General and Management Training, Operational and Technical Training, and Leadership Training, as set out in our Training and Development Policy. We also encourage continuous learning by offering sponsorships to staff undertaking external continuing education programmes.

In April 2020, we launched our new online learning management system, myLearning. This system enables

our employees to access the platform anytime via various devices including mobile phones and tablets, with a wide selection of online courses developed in-house or provided by external providers. We also organised the Lunch & Learn Series, offering bite-sized learning opportunities during lunch time to promote continuous learning across different subjects.

We continued to enhance our learning curriculum to strengthen the skills and industry knowledge of our staff. In 2020/21, our staff collectively received 45,279 hours of training. The average number of training hours per employee* is 15.7 hours.



* Average number of training hours per employee is calculated using the average number of employees for the fiscal year (2020/21: 2,891)

Total training hours

45,279 hours

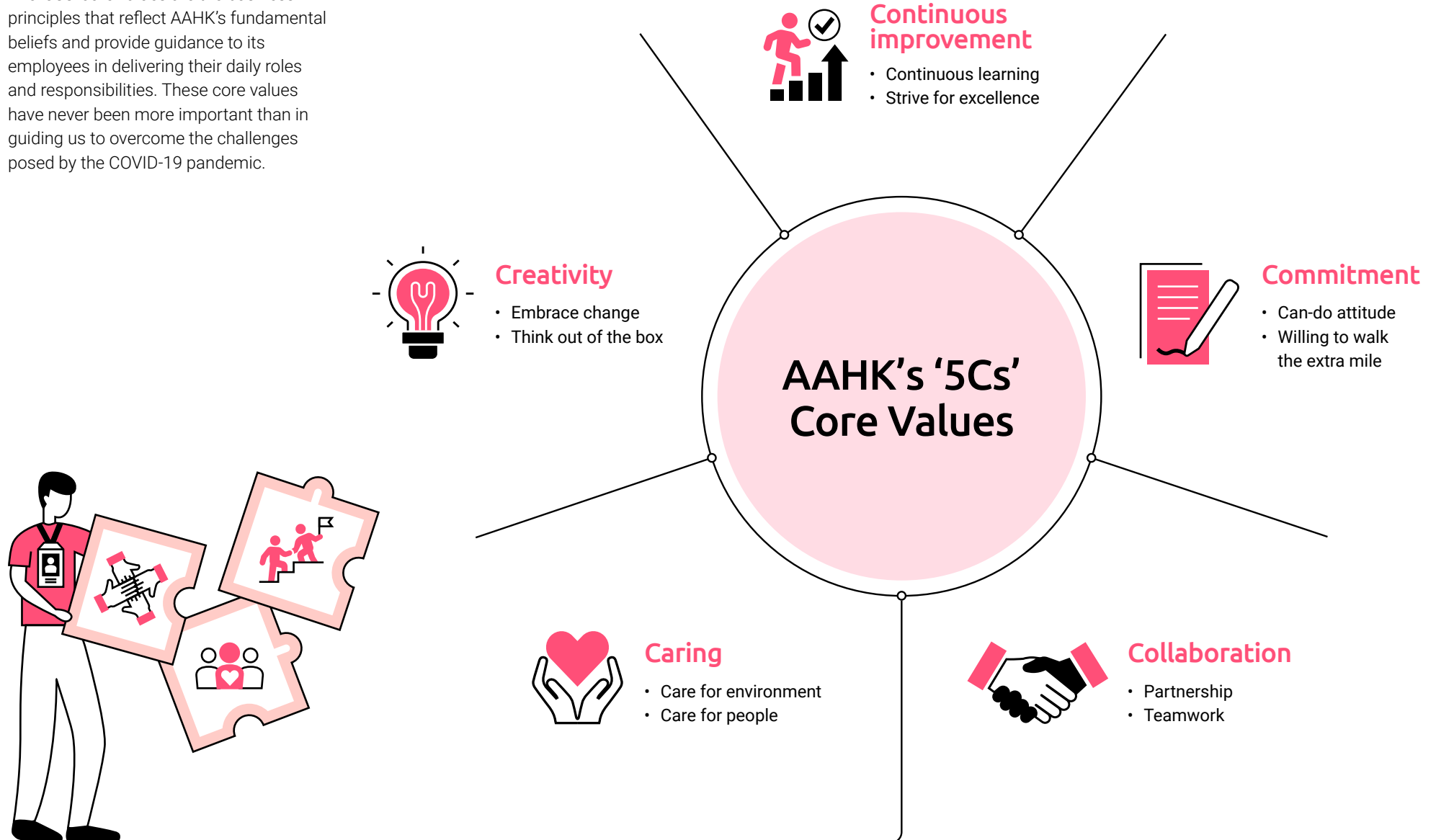
Average training hours per employee

15.7 hours



Strengthening Corporate Culture

The '5Cs' core values are the business principles that reflect AAHK's fundamental beliefs and provide guidance to its employees in delivering their daily roles and responsibilities. These core values have never been more important than in guiding us to overcome the challenges posed by the COVID-19 pandemic.



Keeping Employees Safe and Healthy

Protecting our employees from the pandemic remains our top priority. We continued implementing precautionary measures at the workplace throughout 2020/21, including distribution of face masks and intensifying workplace disinfection programmes.

As early as April 2021, we were already offering three days off to employees who received a COVID-19 vaccination. We also distributed 1,000 air tickets by lucky draw to encourage our employees to get both doses of vaccine by September 2021.

In addition to ensuring the safety of our employees, we organised the second AA Wellness Weeks to promote a healthy work-life balance and encourage employees to adopt an active lifestyle. A virtual kick-off ceremony for this two-week programme was held on 17 August 2020, followed by a signature wellness talk, 'Positive Psychology Against the Pandemic', to give practical tips on managing emotions and stress effectively. In light of the pandemic,

all wellness programmes were held online. A wide range of online exercise classes from wushu to yoga were held with live demonstrations. Wellness talks were organised covering a wide range of topics, such as office ergonomics, positive aging, and parenting during quarantine, etc. During the Wellness Weeks, daily health and wellness tips were emailed to employees to reinforce the importance of maintaining good health. Over 1,700 participants took part in various interest and fitness classes, health talks and fun quizzes over this two-week programme.

Fostering a Culture of Continuous Improvement

We continued the Work Improvement Team (WIT) programme during the COVID-19 pandemic and held the first-ever virtual WIT Convention in March 2021. Over 200 staff members from 11 departments took part in the programme and devised 37 work improvement projects to enhance service standards and operational efficiency. Around 600 airport staff members and guests

attended the virtual event, in which the WIT Grand Award and the Best Presentation Award was presented to the winning team. The WIT programme was first launched in 2016, aiming to empower frontline staff to strive for continuous improvement by identifying operational challenges in their workplace and implementing improvement measures.

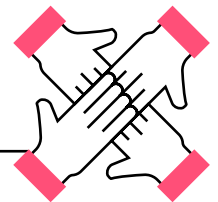
Recognising Outstanding Performance and Long Service

In February 2021, we hosted our first all-staff virtual Live Party with some 2,200 employees attending via online platform. This year, four outstanding employees and eight outstanding teams were recognised during the Live Party for their exceptional achievements and demonstration of exemplary behaviour in line with AAHK's '5Cs' core values. We also presented Long Service Awards for employees who have served at AAHK for 10, 15, 20 and 25 years on the same day, to thank them for their contributions during their tenure.



>200 staff members
took part in the WIT Programme

1st all-staff virtual
Live Party



Enhancing Staff Engagement and Communication

The COVID-19 pandemic has called for a need to maintain social distancing. To this end, we have embarked on the digital transformation journey and made use of various digital platforms to keep our employees connected and engaged.

Competitive Remuneration

We have in place human resources policies to ensure that employees' remuneration is competitive, and employees are rewarded according to their performance within AAHK's performance management framework and reward system. We offer a comprehensive remuneration package to our employees, which includes medical and dental coverage, insurance plans, retirement schemes and various work-related allowances and leave entitlements. In 2020/21, we added new insurance coverage as part of our on-going caring effort to improve staff benefits and welfare.

Employee Communication

We have established the Employee Communication Framework which sets out the objectives and approaches in engaging and communicating with our employees. Through various communication platforms, we cascade corporate messages, listen to employees' voices, and promote cross-departmental communication to facilitate an open communication culture that encourages collaboration and teamwork. In view of on-going social distancing requirements, we adopted new online and mobile-friendly formats to communicate and engage with our employees.



Town Hall Meeting

- In June 2020, we organised the first virtual Townhall Meeting to replace the face-to-face format adopted in previous years. Speaking through the online platform, AAHK's CEO provided an update on the latest developments of HKIA to over 2,000 employees. Following the CEO's update, an online Q&A session was held which opened the floor for AAHK's employees to exchange their views directly with senior management.



Dialogue with Chairman

- In October 2020, AAHK Chairman shared the latest updates on HKIA's developments with the senior management members of AAHK and its subsidiaries.



HR Outreach Programme

- In 2020/21, HR colleagues continued to conduct outreach sessions with frontline staff to discuss workplace challenges, through video conferencing when the COVID-19 epidemic situation was severe. Small group and face-to-face meetings resumed when the pandemic began to subside.



Business Talk Series

- We continued to organise this regular event and invited senior management to share business developments and key projects. The event went virtual and opened to all employees.

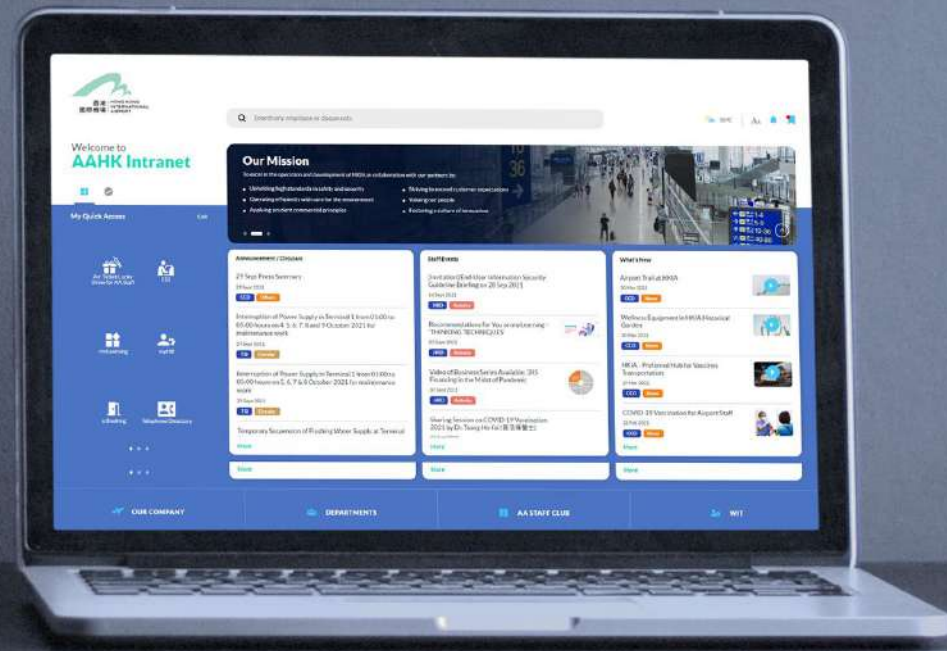
AA Staff Club

Sponsored by AAHK, the AA Staff Club is another platform to engage with employees and enhance their well-being. Recreational, social and celebration activities, as well as online interest and fitness classes, were organised throughout the year.



Case Study: Revamped Intranet

To further strengthen staff communication within the organisation, AAHK started an overhaul of the intranet in 2019. The revamped intranet platform was launched in March 2021, offering a variety of new and user-friendly features. These include a new interface for easy navigation, an upgraded search engine, new personalisation and bookmark function, as well as integration with different internal systems. The new intranet is also compatible with mobile devices through Enterprise Mobile Message, a mobile app that serves as a secure company-wide communication tool for staff. This provides staff with flexibility to access the intranet and internal systems while on the go.



Appendix I

List of Abbreviations

A.I.	Artificial intelligence	EPs	Equator Principles	MEEF	Marine Ecology Enhancement Fund
AAHK	Airport Authority Hong Kong	EPAP	Equator Principles Action Plan	NLMP	North Lantau Marine Park
AA Ordinance	Airport Authority Ordinance	ESG	Environmental, social and governance	OOG	Out-of-gauge
ACFC	Audit Committee and Finance Committee	FEF	Fisheries Enhancement Fund	PPI	People-Plant Interface
ACI	Airports Council International	GADC Strategy	Green Airport Design and Construction Strategy	PRD	Pearl River Delta
ACSI	Airport Composite Safety Index	GBA	Greater Bay Area	PRE	Pearl River estuary
AET	Autonomous Electric Tractor	GHG	Greenhouse gas	RACSFs	Regulated Air Cargo Screening Facilities
AHA	Airport Health Accreditation	GRI	Global Reporting Initiative	RCP	Representative Concentration Pathways
APM	Automated people mover	GSE	Ground services equipment	RDE	Retail, dining and entertainment
AR	Artificial reef	HKBCF	Hong Kong Boundary Crossing Facilities	SPT	SkyPier Terminal
AS2	Augmented Airfield Service System	HKEX ESG Guide	Hong Kong Exchanges and Clearing Limited Environmental, Social and Governance Reporting Guide	TCFD	Task Force on Climate-related Financial Disclosures
AWE	AsiaWorld-Expo	HKIA	Hong Kong International Airport	TCR	Tung Chung River
BDC	Business Development Committee	HKIAA	Hong Kong International Aviation Academy	TRD	Third Runway Division
BESS	Battery Energy Storage System	HKSAR	The Government of the Hong Kong Special Administrative Region	TSCC	Temporary Specimen Collection Centre
BHS	Baggage handling system	Government or the Government		T1	Terminal 1
CAD	Civil Aviation Department	HRRC	Human Resources & Remuneration Committee	T1M	T1 Midfield Concourse
CDM	Collaborative Decision Making	HZMB	Hong Kong-Zhuhai-Macao Bridge	T1S	Terminal 1 Satellite Concourse
CEEQUAL	Civil Engineering Environmental Quality Assessment and Award Scheme	i-CSCs	i-Customer Service Centres	T2	Terminal 2
CEIV Pharma	Centre of Excellence for Independent Validators in Pharmaceutical Logistics	IoT	Internet of Things	T2C	T2 Concourse
CEO	Chief Executive Officer	IATA	International Air Transport Association	UAS	Unmanned Aircraft System
CWD	Chinese White Dolphin	ICAC	Independent Commission Against Corruption	Weather FACTS	Weather Forecast for Air-conditioning Control System
DATMS	Digital Apron and Tower Management System	ICAO	International Civil Aviation Organization	WIT	Work Improvement Team
eBCR	Digitalised Baggage Containerisation Report	IPCC	Intergovernmental Panel on Climate Change	2RS	Two-Runway System
EIA	Environmental impact assessment	IUCN	International Union for the Conservation of Nature and Natural Resources	3RS	Three-Runway System
EMS	Environmental management system			3RSWC	3RS & Works Committee
EM&A	Environmental monitoring and audit				

Appendix II

Performance Data

Economic, operational, workplace and social data presented in this section covers the fiscal year 2020/21, unless otherwise stated. Environmental data is reported for the calendar year ended 31 December 2020. Where available, data for previous fiscal years or calendar years has been included to facilitate comparison and analysis. Data performance heavily impacted by COVID-19 is asterisked (*) in the tables below and may represent an anomaly trend in year-on-year performance.

Economic Data

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
Economic performance¹						
Economic value generated						
Revenue	HK\$ million	18,627	21,994	19,470	17,106	5,936*
Economic value distribution						
Operating costs ²	HK\$ million	5,796	6,058	7,027	7,886	8,054
Employee wages and benefits	HK\$ million	2,360	2,825	3,182	3,638	3,760
Financial donations	HK\$ million	5	4	4	3	2
Payments to providers of funds	HK\$ million	138	75	79	221	767
Payments to government ³	HK\$ million	1,093	1,810	1,498	1,195	106
Economic value retained⁴						
Economic value retained	HK\$ million	11,600	14,051	10,866	7,804	(2,991)

1. Economic performance covers the direct economic value generated and distributed from the reporting organisation (i.e., AAHK) as defined in GRI 201-1. The relevant performance data was extracted from AAHK's audited consolidated financial statements and the Report of the Members of the Board.
2. 'Operating costs' includes 'Employee wages and benefits' and 'Financial donations'.

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
Procurement for daily operation						
Procurement value						
Total	HK\$ billion	2.6	3.4	3.6	4.4	4.7
Number of suppliers by geographical region⁵						
Hong Kong	Number	N/A	N/A	N/A	N/A	983
Outside Hong Kong	Number	N/A	N/A	N/A	N/A	92
Spend profile by geographical location of suppliers						
Hong Kong	Percentage	93	93	94	92	93
Outside Hong Kong	Percentage	7	7	6	8	7
Spend profile by type						
Operation-related goods and services	Percentage	30	28	29	29	25
Maintenance and engineering works	Percentage	28	36	29	27	34
Airport-specific equipment	Percentage	17	13	15	16	16
General goods and services	Percentage	13	11	14	12	7
IT and telecommunications	Percentage	12	12	13	16	18

3. Hong Kong profits tax paid to the HKSAR Government.
4. 'Economic value retained' is derived by subtracting 'Operating costs', 'Payments to providers of funds' and 'Payments to government' from 'Economic value generated'.
5. The number of suppliers by geographical region for 2016/17, 2017/18, 2018/19 and 2019/20 is not available.

Operational Data

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
Air traffic data						
Passenger traffic ¹	Millions of passengers	70.5	73.6	75.1	60.9	0.8*
Cargo throughput ²	Millions of tonnes	4.7	5.1	5.1	4.7	4.6
Aircraft movement ³	Thousands	410	423	429	377	128*
Connectivity						
Passengers using land-based cross-boundary transport	Thousands of passengers	1,978	2,041	1,971	1,519	0*
Number of cross-border land destinations	Number	110	110	110	110	0*
Passengers using SkyPier	Thousands of passengers	2,593	2,569	2,494	1,890	25*
Number of cross-border seaports served	Number	9	9	9	9	4*

1. Total number of passengers includes originating, terminating, transfer and transit passengers. Transfer and transit passengers are counted twice. The number of passengers broken down by passengers on international and domestic flights is not relevant for AAHK as all passengers are classified as international. Origin-and-destination and transfer and transit data is not reported as it is considered commercially sensitive.
2. The scope of cargo tonnage has been revised to include import, export and transshipment (counted twice) cargo and airmail since 2018/19. Cargo tonnage broken down by cargo transported on all-cargo flights and on passenger flights is not reported as the data is considered commercially sensitive.
3. Aircraft movement includes civil international passenger, cargo and non-revenue flights. Military and local flights are excluded. Aircraft movement by day and by night, broken down by commercial passenger, commercial cargo, general aviation and state aviation, is not reported as the data is considered commercially sensitive.

	Unit	2016	2017	2018	2019	2020
Customer satisfaction						
Airport Service Quality (ASQ) overall satisfaction score ⁴	Score (out of 5)	4.86	4.86	4.87	4.87	4.87
Annual mean score of passengers feeling safe and secure ⁵	Score (out of 5)	4.81	4.82	4.84	4.87	4.81
Index of complaints						
Index of complaints received per million passengers	Number	32.5	34.0	31.4	43.7	400.7*
Airport safety performance						
Airport Composite Safety Index ⁶	Injury rate per million passengers	3.94	3.25	2.78	3.05	136.5*
Index of birdstrikes per 10,000 aircraft movements	Number	0.61	0.47	0.65	0.61	1.10
Availability of airfield ground lighting ⁷	Percentage	99.99	100.00	100.00	100.00	99.98

4. According to the Airports Council International (ACI)'s ASQ Survey, which is based on performance in a calendar year (i.e., 1 January to 31 December).
5. This is an aspect covered in the ACI's ASQ Survey. The 2017 figure has been restated following an internal database review.
6. The Airport Composite Safety Index is a safety performance indicator that measures the number of injuries arising from passengers and staff, with respect to the number of passengers.
7. The availability of airfield ground lighting is determined in accordance with the requirements of International Civil Aviation Organization (ICAO)'s Annex 14 of the Convention on International Civil Aviation. The percentage of availability = $[(\text{Total operation hours} - \text{System down time}) / \text{Total operation hours}] \times 100\%$. The percentages are rounded to two decimal points for reporting purposes.

Environmental Data¹

	Unit	2016/17	2017/18	2018/19	2019/20	2020
Waste management²						
Waste disposal						
Waste sent to landfill (absolute)	Tonnes	25,373	26,642	25,410	21,495	6,957*
Waste sent to landfill (intensity)	kg per passenger	0.360	0.362	0.338	0.353	0.787*
Waste recycling						
Recycling rate ³	Percentage	8.4	8.7	11.3	12.4	11.0*
Recyclable collected (absolute)	Tonnes	2,334	2,570	3,241	3,038	860*
Recyclables collected (intensity)	kg per passenger	0.033	0.035	0.043	0.050	0.097*

	Unit	2016/17	2017/18	2018/19	2019/20	2020
Recyclables collected by type						
Paper and cardboard	Tonnes	1,801	2,002	2,400	2,212	607*
Plastics	Tonnes	274	290	202	135	52*
Metal and cans	Tonnes	61	82	72	70	41*
Wooden pallets and boxes	Tonnes	31	41	146	153	60*
Glass	Tonnes	10	16	143	151	22*
Food waste ⁴	Tonnes	110	122	270	313	57*
Surplus food ⁵	Tonnes	5.9	2.7	2.0	1.6	0.2*
E-waste ⁶	Tonnes	N/A	N/A	N/A	N/A	7
Yard waste ⁶	Tonnes	N/A	N/A	N/A	N/A	10
Rechargeable battery ⁶	Tonnes	N/A	N/A	N/A	N/A	0.007

- In this report, the reporting period of environmental data has been revised to calendar year (i.e., 1 January to 31 December).
- Past waste data in calendar years is not available. Instead, past waste data in fiscal years is presented for reference.
- In 2020, HKIA's recycling rate was revised to include surplus food collected from AAHK and its tenants, e-waste (computer equipment), yard waste (Christmas trees and peach blossom trees), and rechargeable batteries, in addition to paper and cardboard, plastics, metal and cans, wooden pallets and boxes, glass, food waste collected from AAHK and its tenants, and chemical waste.

- Food waste was collected via the HKIA Food Waste Recycling Programme and converted into fishmeal (till June 2020) and biogas at O · PARK1, an organic resources recovery centre owned by the HKSAR Government. This indicator has been revised to provide a breakdown of food waste collected from AAHK and its tenants, and business partners.
- Surplus food waste was collected via the HKIA Food Rescue Programme and transformed into hot meal boxes by a local non-governmental organisation, Food Angel. This indicator has been revised to provide a breakdown of surplus food collected from AAHK and its tenants, and business partners and the neighbouring communities.
- The amount of e-waste, yard waste and rechargeable batteries collected for 2016/17, 2017/18, 2018/19 and 2019/20 is not available.

Environmental Data (Continued)

	Unit	2016/17	2017/18	2018/19	2019/20	2020
Waste management (continued)						
Chemical waste handling⁷						
Chemical waste collected (absolute)	Tonnes	23	13	8	4	4
Chemical waste collected (intensity)	kg per passenger	0.3236	0.1820	0.1118	0.0624	0.4753
Food waste and surplus food collected from business partners and neighbouring communities						
Food waste collected from business partners ⁸	Tonnes	2,021	1,903	1,867	1,644	684*
Surplus food collected from business partners, Tung Chung and Discovery Bay ⁹	Tonnes	31.4	41.3	35.9	36.4	80.4*

7. AAHK adopts the 'chemical waste' categorisation as specified under the Waste Disposal Ordinance (Chapter 354, The Laws of Hong Kong) for hazardous waste. The figure includes waste lubricating oil and used mercury-containing fluorescent tubes collected by a registered chemical waste collector for disposal under a trip-ticket system.

8. This indicator has been revised to provide a breakdown of food waste collected from AAHK and its tenants and business partners.

9. This indicator has been revised to provide a breakdown of surplus food collected from AAHK and its tenants, business partners and neighbouring communities.

Environmental Data (Continued)

	Unit	2016	2017	2018	2019	2020
Greenhouse gas (GHG) emissions¹⁰						
GHG net emissions						
GHG net emissions (absolute)	Tonnes ('000) of CO ₂ e	172.67	160.14	160.58	164.11	82.38*
GHG net emissions (intensity)	kg CO ₂ e per WLU ¹¹	1.49	1.31	1.28	1.37	1.54*
Scope 1 – Direct emissions						
Stationary combustion	Tonnes ('000) of CO ₂ e	0.13	0.12	0.15	0.13	0.11
Mobile combustion	Tonnes ('000) of CO ₂ e	2.70	2.91	3.06	2.73	1.34*
Fugitive emissions	Tonnes ('000) of CO ₂ e	4.77	6.56	6.90	8.19	0.68*
Scope 2 – Indirect emissions						
Electricity ¹²	Tonnes ('000) of CO ₂ e	165.25	150.74	151.14	153.39	80.61*

10. The methodologies and emission factors applied for the development of a GHG emissions inventory are in accordance with the *Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purposes) in Hong Kong (2010 Edition)* issued by the Electrical and Mechanical Services Department and Environmental Protection Department. AAHK follows the operational control approach in defining its organisational boundary, which covers buildings and facilities that AAHK has control over. The inventory covered seven types of GHG, namely carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and chlorodifluoromethane (HCFC-22).

	Unit	2016	2017	2018	2019	2020
Scope 3 – Other indirect emissions						
Paper disposal at landfill and electricity consumption for processing fresh water and sewage	Tonnes ('000) of CO ₂ e	0.43	0.48	0.46	0.45	0.39
Emissions avoided						
By tree planting and paper recycling	Tonnes ('000) of CO ₂ e	0.61	0.67	1.13	0.78	0.74
HKIA airport-wide GHG emissions						
GHG emissions from AAHK	Tonnes ('000) of CO ₂ e	172.67	160.14	160.58	164.11	82.38
GHG emissions from AAHK's business partners ¹³	Tonnes ('000) of CO ₂ e	263.89	276.60	275.08	272.83	257.74
GHG net emissions (absolute)	Tonnes ('000) of CO ₂ e	436.56	436.73	435.66	436.94	340.12*
GHG net emissions (intensity)	kg CO ₂ e per WLU	3.77	3.57	3.46	3.65	6.36*

11. One workload unit (WLU) is either 1 passenger or 100kg of cargo.

12. The emission factor for each respective year as provided by CLP Power Hong Kong Limited, AAHK's electricity provider, was applied.

13. This figure covers Scope 1 and Scope 2 emissions from airport business partners participating in the HKIA Carbon Reduction Programme.

Environmental Data (Continued)

	Unit	2016	2017	2018	2019	2020
Energy management						
Energy consumption						
Energy consumed (absolute)	GJ	1,140,614	1,105,934	1,111,299	1,143,883	803,990*
Energy consumed (intensity)	GJ per passenger	0.016	0.015	0.015	0.016	0.091*
Direct energy consumption	GJ	38,982	41,900	44,410	39,457	19,719*
Indirect energy consumption	GJ	1,101,632	1,064,034	1,066,889	1,104,426	784,271*
Direct energy consumed by type						
Diesel	Litres	947,242	1,017,520	1,092,912	967,139	450,404*
Petrol	Litres	117,304	124,052	114,362	107,268	87,757*
LPG	Litres	12,704	17,238	20,233	16,031	12,434*
Indirect energy consumed						
Electricity consumed (absolute)	kWh ('000)	306,009	295,565	296,358	306,785	217,853*
Electricity consumed (intensity)	kWh per passenger	4.34	4.06	3.97	4.29	24.66*

14. AAHK uses a 'triple water system' to improve the efficiency of our three major water sources: freshwater, seawater and treated wastewater. Details are available on our [website](#).

	Unit	2016	2017	2018	2019	2020
Water management¹⁴						
Municipal water consumed (absolute)	m ³ ('000)	377	383	380	353	340*
Municipal water consumed (intensity)	Liters per passenger	5.35	5.26	5.09	4.94	38.48*
Water withdrawal by other sources						
Seawater	m ³ ('000)	88,707	83,053	77,521	81,682	63,069*
Water recycled/reused	m ³ ('000)	200	195	163	173	168
Water discharge						
Total water discharge ¹⁵	m ³ ('000)	177	188	217	180	172
Aircraft fuel spillage						
Aircraft fuel spillage	Number of spills	18	25	16	9	9

15. The volume of wastewater discharge is estimated by subtracting the volume of wastewater recycled from our municipal water consumption. Under the Water Pollution Control Ordinance (Chapter 358, The Laws of Hong Kong), AAHK holds a number of licences which require the monitoring of water quality using the following parameters: flow rate (m³/day), total residual chlorine, amines, temperature, antifoulant, suspended solids, chemical oxygen demand, oil and grease, surfactants (total), biochemical oxygen demand, total phosphorus and formaldehyde. In 2020, all discharges were in compliance with licence discharge limits.

Workplace Data

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
Workforce						
Total employees ¹	Number	1,929	2,314	2,602	2,844	2,870
Total workforce by employee category						
Senior management	Number	49	57	58	58	54
Professional/Managerial staff	Number	722	908	1,089	1,283	1,373
Supporting staff	Number	1,158	1,349	1,455	1,503	1,443
Total workforce by employment contract						
Permanent	Percentage	84	73	66	61	57
Fixed-term ²	Percentage	16	27	34	39	43
Total workforce by gender						
Male	Percentage	62	64	65	66	67
Female	Percentage	38	36	35	34	33
Total workforce by age group³						
Under 30	Percentage	17	19	17	17	13
30 to 50	Percentage	60	61	63	64	68
Over 50	Percentage	23	20	20	18	19
Total workforce by location⁴						
Hong Kong	Percentage	99	100	100	100	100
Outside Hong Kong ⁵	Percentage	1	0	0	0	0

- Since 2017/18, the scope of total employees has been revised to include temporary staff and exclude employees of AAHK's wholly-owned subsidiaries, to align with the scope and numbers as disclosed in AAHK's Annual Report. The scope of the figures for 2016/17 remains unchanged.
- A fixed-term contract is an employment agreement that lasts for a specified period.

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
Percentage of employees by employee category and gender						
Senior management by gender						
Male	Percentage	71	75	78	72	70
Female	Percentage	29	25	22	28	30
Professional/Managerial staff by gender						
Male	Percentage	68	69	71	71	72
Female	Percentage	32	31	29	29	28
Supporting staff by gender						
Male	Percentage	58	60	60	61	62
Female	Percentage	42	40	40	39	38

- The breakdown of age groups has been adjusted to under 30, 30 to 50 and over 50 to align with the categories recommended by Global Reporting Initiative (GRI) and Hong Kong Exchanges and Clearing Limited Environmental, Social and Governance Reporting Guide (HKEX ESG Guide).
- Percentages are rounded to the nearest integer for reporting purposes. In 2017/18, 2018/19, 2019/20, and 2020/21, the percentage of employee located in Hong Kong was not precisely 100%.
- Locations outside Hong Kong included Zhuhai, Guangzhou, Hangzhou and Shanghai.

Workplace Data (Continued)

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
Percentage of employees by employee category and age group						
Senior management by age group						
Under 30	Percentage	0	0	0	0	0
30 to 50	Percentage	18	23	22	19	19
Over 50	Percentage	82	77	78	81	81
Professional/Managerial staff by age group						
Under 30	Percentage	2	3	4	4	5
30 to 50	Percentage	73	76	75	76	75
Over 50	Percentage	25	21	21	20	20
Supporting staff by age group						
Under 30	Percentage	27	30	28	29	22
30 to 50	Percentage	55	53	56	57	63
Over 50	Percentage	18	17	16	14	15
Percentage of employees by employee category and ethnic group						
Senior management by ethnic group						
Chinese	Percentage	90	88	84	84	85
Non-Chinese	Percentage	10	12	16	16	15
Professional/Managerial staff by ethnic group						
Chinese	Percentage	98	98	98	98	98
Non-Chinese	Percentage	2	2	2	2	2
Supporting staff by ethnic group⁶						
Chinese	Percentage	100	100	100	100	100
Non-Chinese	Percentage	0	0	0	0	0

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
Number of employees by employment contract, by gender and region						
Permanent contract employees by gender						
Male	Number	973	993	1,004	1,001	933
Female	Number	643	697	720	734	690
Fixed-term contract employees by gender						
Male	Number	230	481	689	871	991
Female	Number	83	143	189	238	256
Permanent contract employees by region						
Hong Kong	Number	1,611	1,683	1,718	1,731	1,619
Outside Hong Kong	Number	5	7	6	4	4
Fixed-term contract employees by region						
Hong Kong	Number	312	621	874	1,105	1,243
Outside Hong Kong	Number	1	3	4	4	4

6. Percentages are rounded to the nearest integer for reporting purposes. In 2018/19 and 2020/21, the percentage of Chinese employee was not precisely 100%.

Workplace Data (Continued)

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
Ratio of basic salary⁷ and basic remuneration⁸ of women to men						
Ratio of basic salary of women to men by employee category						
Senior management						
Male	–	1.02	0.99	0.95	0.97	0.98
Female	–	1.00	1.00	1.00	1.00	1.00
Professional/Managerial staff						
Male	–	1.14	1.16	1.13	1.13	1.12
Female	–	1.00	1.00	1.00	1.00	1.00
Supporting staff						
Male	–	1.16	1.20	1.21	1.22	1.24
Female	–	1.00	1.00	1.00	1.00	1.00
Ratio of basic remuneration of women to men by employee category						
Senior management						
Male	–	1.05	1.02	0.97	0.97	0.99
Female	–	1.00	1.00	1.00	1.00	1.00
Professional/Managerial staff						
Male	–	1.12	1.13	1.11	1.13	1.13
Female	–	1.00	1.00	1.00	1.00	1.00
Supporting staff						
Male	–	1.17	1.21	1.25	1.26	1.29
Female	–	1.00	1.00	1.00	1.00	1.00

7. Basic salary is a fixed, minimum amount paid to an employee for performance of duties. This does not include any additional remuneration.

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
New hires⁹						
Total new hires	Number	464	590	515	307	281
Total new hires by gender						
Male	Number	286	399	347	195	218
Female	Number	163	185	168	112	63
Total new hires by age group						
Under 30	Number	165	192	164	127	40
30 to 50	Number	261	344	292	163	213
Over 50	Number	38	54	59	17	28
New hire rate						
Total new hire rate	Percentage	24.1	25.5	19.8	10.8	9.8
New hire rate by gender						
Male	Percentage	24	27	20	10	11
Female	Percentage	22	22	18	12	7
New hire rate by age group						
Under 30	Percentage	50	44	36	26	10
30 to 50	Percentage	23	24	18	9	11
Over 50	Percentage	9	12	12	3	5

8. Remuneration is a basic salary plus additional amounts, such as those based on years of service, variable pay according to AAHK's Variable Compensation Scheme, benefit payments, and any additional allowance.

9. In 2020/21, two new hires were based in Mainland China. In 2016/17, 2017/18, 2018/19, 2019/20, all new hires were based in Hong Kong. The new hire rate is calculated using the total number of employees at the end of the reporting period.

Workplace Data (Continued)

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
Turnover¹⁰						
Total turnover	Number	114	178	215	238	183
Turnover by gender						
Male	Number	57	106	117	148	120
Female	Number	57	72	98	90	63
Turnover by age group						
Under 30	Number	44	75	88	63	41
30 to 50	Number	58	86	108	155	119
Over 50	Number	12	17	19	20	23
Turnover rate						
Total turnover rate	Percentage	6.4	8.2	8.7	8.7	6.3
Turnover rate by gender						
Male	Percentage	5	8	7	8	6
Female	Percentage	8	9	11	10	7
Turnover rate by age group						
Under 30	Percentage	14	18	20	13	9
30 to 50	Percentage	6	7	7	9	6
Over 50	Percentage	3	4	4	4	4

10. The turnover in 2020/21 was based in Hong Kong. The number of leavers and turnover rate exclude involuntary termination and temporary staff. The turnover rate is calculated using the average number of employees for the fiscal year.

11. The figures reflect the total hours of employee training during the year (including training hours of both active staff and leavers) per the average headcount of the fiscal year.

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
Employee training						
Total hours of employee training	Hours	49,520	53,718	57,417	42,894	45,279
Average hours of employee training ¹¹	Hours	28.0	24.9	23.3	15.6	15.7
Total hours by training type						
In-house training programmes	Hours	22,022	21,844	31,917	18,529	15,253
E-learning programmes	Hours	6,270	7,732	8,868	11,364	14,824
Operational and technical (external) training	Hours	21,228	24,143	16,632	13,001	15,203
Human rights training¹²						
Total hours of human rights training provided	Hours	1,490	1,702	2,639	2,869	2,314
Percentage of employees trained	Percentage	99.1	97.5	97.4	99.3	99.6
Anti-corruption training						
Management employees trained during the year	Percentage	18.8	24.3	21.7	26.7	22.4
Non-management employees trained during the year	Percentage	25.4	22.2	20.9	22.6	14.8*

12. Training topics include corporate governance, code of conduct, data privacy, equal opportunities and anti-discrimination.

Workplace Data (Continued)

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
In-house training hours by training category						
Social and intellectual skills	Percentage	26.5	12.9	45.7	6.8	0.5
Orientation	Percentage	24.4	22.2	16.9	32.9	21.6
Town Hall Meeting and other internal communications	Percentage	13.8	17.0	9.5	16.4	15.2
Legal compliance, procedures and practices	Percentage	6.7	7.8	3.5	6.2	9.5
Personal attributes and effectiveness	Percentage	6.4	5.1	3.1	7.0	20.0
Work Improvement Team programme	Percentage	6.2	13.4	5.0	4.7	3.4
Management development programme	Percentage	5.8	10.7	9.0	18.7	21.1
Environmental and staff well-being	Percentage	5.1	5.1	4.6	2.8	8.7
Airport operational training	Percentage	3.8	5.8	2.7	4.5	0

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
Analysis of average training hours						
Average training hours by gender						
Male	Hours	28.4	24.2	22.4	15.4	15.3
Female	Hours	27.2	26.0	25.0	16.1	16.3
Average training hours by employee category						
Senior management	Hours	20.7	42.4	14.4	21.5	8.5
Professional/ Managerial staff	Hours	27.1	24.4	24.9	16.9	15.7
Supporting staff	Hours	28.8	24.4	22.6	14.4	15.9
Percentage of employees who received training						
Employees who receiving training by gender						
Male	Percentage	62.4	63.9	64.9	65.9	67.1
Female	Percentage	37.6	36.1	35.1	34.1	32.9
Employees who receiving training by employee category						
Senior management	Percentage	2.7	2.5	2.2	2.0	1.9
Professional/ Managerial staff	Percentage	37.3	39.4	42.4	45.1	47.9
Supporting staff	Percentage	60.0	58.1	55.4	52.9	50.2

Workplace Data (Continued)

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
Family-friendly practice						
Employees who were entitled to maternity/paternity leave ¹³	Number	N/A	N/A	N/A	N/A	2,759
Employees who took maternity/paternity leave						
Total	Number	47	64	85	94	95
Male	Number	26	41	50	65	69
Female	Number	21	23	35	29	26
Employees returned to work after leave						
Total	Number	47	63	85	94	95
Male	Number	26	41	50	65	69
Female	Number	21	22	35	29	26
Return to work rate after leave						
Return to work rate after leave	Percentage	100	98	100	100	100
Male	Percentage	100	100	100	100	100
Female	Percentage	100	95	100	100	100

13. The number of employees entitled to maternity/paternity leave refers to male and female employees who have been in continuous employment within AAHK for six months and not less than 40 weeks respectively as of 31 March of each year, a prerequisite for paid parental leave. The number of employees entitled to maternity/paternity leave for 2016/17, 2017/18, 2018/19 and 2019/20 is not available.

14. Retention shows the number of employees retained 12 months after they returned to work following parental leave in the previous reporting period (i.e., 2019/20).

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
Retention¹⁴						
Total	Number	34	45	55	82	89
Male	Number	20	25	37	48	60
Female	Number	14	20	18	34	29
Retention rate						
Total	Percentage	100	96	87	96	95
Male	Percentage	100	96	90	96	92
Female	Percentage	100	95	78	97	100
Occupational health and safety¹⁵						
Injuries ¹⁶	Number	6	6	11	4	5
Injury rate	Percentage	0.2	0.3	0.4	0.1	0.2
Lost days	Number	35	40	119	12	44
Lost day rate	Percentage	0.005	0.005	0.013	0.001	0.004
Absentee rate	Percentage	1.1	1.1	1.2	1.2	0.8

15. There were no occupational disease cases or work-related fatalities during each of the past five reporting periods (i.e. 2016/17, 2017/18, 2018/19, 2019/20 and 2020/21). The injury rate indicates the number of occupational injuries as a percentage of the total number of employees during the reporting period. The lost day rate and absentee rate indicate respectively the number of lost days (as a result of occupational injuries) and the number of absentee days (as a result of occupational injuries and other illnesses) as a percentage of the total number of employees working throughout the year (365 calendar days).

16. The five injuries included one injury caused by high pressure water jet (#1), one injury caused by a broken digital panel (#1), one injury in a crash of a three-wheel electric vehicle into the cable containment (#1), and two injuries caused from slipping down from staircases (#2).



Social Data

	Unit	2016/17	2017/18	2018/19	2019/20	2020/21
Employee volunteers ¹	Number	246	218	180	93	9*
Volunteer hours contributed ¹	Hours	1,226	1,075	966	291	16*
Volunteer activities organised ¹	Number	14	11	12	5	2*

1. Since 2020/21, the scope of social data has been revised to cover all volunteer activities in which AAHK participated, in addition to those organised by AAHK's social service group. The figures for 2016/17, 2017/18, 2018/19 and 2019/20 have been revised to align the scope.



Appendix III

HKEX ESG Guide Content Index

Requirements, Subject Areas, Aspects, General Disclosures and KPIs		Locations of Disclosure or Remarks
Mandatory Disclosure Requirements		
Governance Structure	A statement from the board containing the following elements: <ul style="list-style-type: none"> i) A disclosure of the board's oversight of ESG issues; ii) The board's ESG management approach and strategy, including the process used to evaluate, prioritise and manage material ESG-related issues (including risks to the issuer's businesses); and iii) How the board review progress made against ESG-related goals and targets with an explanation of how they relate to the issuer's businesses. 	<ul style="list-style-type: none"> • Our Approach to Sustainability
Reporting Principles	A description of, or an explanation on, the application of the following Reporting Principles in the preparation of the ESG report.	<ul style="list-style-type: none"> • Materiality: Our Approach to Sustainability • Quantitative: About this Report • Consistency: About this Report
Reporting Boundary	A narrative explaining the reporting boundaries of the ESG report and describing the process used to identify which entities or operations are included in the ESG report. If there is a change in the scope, the issuer should explain the difference and reason for the change.	<ul style="list-style-type: none"> • About this Report

Requirements, Subject Areas, Aspects, General Disclosures and KPIs
Locations of Disclosure or Remarks
'Comply or explain' Provisions
A. Environmental
Aspect A1: Emissions

General Disclosure	Information on: a) the policies; and b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	<ul style="list-style-type: none"> • Our Approach to Sustainability
KPI A1.1	The types of emissions and respective emissions data.	<ul style="list-style-type: none"> • Air quality is not considered as a top sustainability issue to AAHK. • Since 2004, AAHK has been monitoring the air quality at HKIA and made this information available on its website since 2012. Ambient air quality at HKIA is monitored through two on-airport air quality monitoring stations and a control site Sha Chau. Monitored air pollutants include nitrogen dioxide (NO₂), sulphur dioxide (SO₂), respirable suspended particulates (PM10), fine suspended particulates (PM2.5), carbon monoxide (CO) and ozone (O₃). In 2016, we upgraded our website to include hourly Air Quality Health Index (AQHI) information, which refers to the AQHI published by the HKSAR Government. The AQHI information is available on our website. • Air quality monitoring of 1-hour Total Suspended Particulates (TSP) is conducted three times every six days at two representative monitoring stations in the vicinity of air sensitive receivers in Tung Chung and villages in North Lantau. The data is disclosed to the public on the dedicated 3RS Project environmental website.
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g., per unit of production volume, per facility).	<ul style="list-style-type: none"> • Performance Data
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g., per unit of production volume, per facility).	<ul style="list-style-type: none"> • Performance Data
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g., per unit of production volume, per facility).	<ul style="list-style-type: none"> • Performance Data
KPI A1.5	Description of emissions target(s) set and steps taken to achieve them.	<ul style="list-style-type: none"> • Greenest Airport
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	<ul style="list-style-type: none"> • Greenest Airport

Requirements, Subject Areas, Aspects, General Disclosures and KPIs		Locations of Disclosure or Remarks
Aspect A2: Use of Resources		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	<ul style="list-style-type: none"> • Our Approach to Sustainability
KPI A2.1	Direct and/or indirect energy consumption by type (e.g., electricity, gas or oil) in total (kWh in '000s) and intensity (e.g., per unit of production volume, per facility).	<ul style="list-style-type: none"> • Performance Data
KPI A2.2	Water consumption in total and intensity (e.g., per unit of production volume, per facility).	<ul style="list-style-type: none"> • Performance Data
KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	<ul style="list-style-type: none"> • Greenest Airport
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	<ul style="list-style-type: none"> • Water is not considered as a top sustainability issue to AAHK. • During the reporting period, AAHK has not experienced any issue with sourcing water in its operations. • While AAHK has not set any water efficiency target, it has implemented various water saving measures, including low-flow sensor type water taps, dual flush water cisterns and sensor type urinals. Besides, HKIA adopts a 'triple water system' to improve the efficiency of its three major water sources: freshwater, seawater and treated wastewater. Details of our 'triple water system' are available on our website.
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	<ul style="list-style-type: none"> • Material use is not considered as a top sustainability issue to AAHK. • The HKairportshop.com is an online shopping platform operated by AAHK through an outsourced contractor. The online shop enables passengers and customers to shop online for products offered by retail tenants operating at HKIA. Packaging materials, such as gift wrapping, packaging filing, including inflatable air cushion bags, inflatable air column cushion, bubble film sheets/ bags, and paper carton box, are managed and used by contractors.
Aspect A3: The Environment and Natural Resources		
General Disclosure	Policies on minimising the issuer's significant impacts on the environment and natural resources.	<ul style="list-style-type: none"> • Our Approach to Sustainability
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	<ul style="list-style-type: none"> • Greenest Airport
Aspect A4: Climate Change		
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	<ul style="list-style-type: none"> • Our Approach to Sustainability
KPI A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	<ul style="list-style-type: none"> • Greenest Airport; • Task Force on Climate-related Financial Disclosures (TCFD) Statement

**Requirements, Subject Areas, Aspects, General Disclosures and KPIs****Locations of Disclosure or Remarks****B. Social****Employment and Labour Practices****Aspect B1: Employment**

General Disclosure	Information on: a) the policies; and b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	• Our Approach to Sustainability
KPI B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	• Performance Data
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	• Performance Data

Aspect B2: Health and Safety

General Disclosure	Information on: a) the policies; and b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	• Our Approach to Sustainability
KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	• Performance Data
KPI B2.2	Lost days due to work injury.	• Performance Data

Requirements, Subject Areas, Aspects, General Disclosures and KPIs		Locations of Disclosure or Remarks
Aspect B2: Health and Safety (Continued)		
KPI B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	<ul style="list-style-type: none"> • World-class Gateway; • Our People • In addition, AAHK has put in place a Safety Management System (SMS) which addresses occupational health and safety (OHS) risks. The SMS enables AAHK to effectively assess OHS-related risks and develop solutions, thus improving risk management decision-making and increasing AAHK's ability to target resources to those issues appropriately. • AAHK also implements the Corporate Occupational Safety and Health (OSH) Management Plan to provide a safe and healthy workplace and achieve legal OSH compliance. OSH hazards are identified, assessed, and monitored with a risk control process in place. Training is provided to ensure staff are equipped with the required knowledge and ability to carry out their duties in a competent and safe manner. Mandatory basic safety training and safety awareness testing are arranged for airport restricted area permit holders, baggage hall operators, and works contractors and safety briefings for non-permit holders. Theme-specific and airport-wide safety promotion programmes are also organised for the airport community. Safety programmes and initiatives are communicated to all staff and workers via various appropriate channels such as management briefing, bulletin, circular, handbook, poster, and video, etc.
Aspect B3: Development and Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	<ul style="list-style-type: none"> • Our People
KPI B3.1	The percentage of employees trained by gender and employee category (e.g., senior management, middle management).	<ul style="list-style-type: none"> • Performance Data
KPI B3.2	The average training hours completed per employee by gender and employee category.	<ul style="list-style-type: none"> • Performance Data



Requirements, Subject Areas, Aspects, General Disclosures and KPIs

Locations of Disclosure or Remarks

Aspect B4: Labour Standards

General Disclosure	<p>Information on:</p> <p>a) the policies; and</p> <p>b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.</p>	<ul style="list-style-type: none"> • Our Approach to Sustainability
KPI B4.1	<p>Description of measures to review employment practices to avoid child and forced labour.</p>	<ul style="list-style-type: none"> • Labour standards is not considered as a top sustainability issue to AAHK.
KPI B4.2	<p>Description of steps taken to eliminate such practices when discovered.</p>	<ul style="list-style-type: none"> • AAHK's suppliers are required to comply with all legislation in Hong Kong, including those concerning working conditions and labour practices, as stated in the General Conditions of Contract. For contractors and their subcontractors of the Three-Runway System (3RS) Project, AAHK requires them to undertake and confirm their commitments to comply with all relevant internationally recognised good practices on labour standards, and the employment of staff and workforce well-being. These include the prohibition of the use of any form of child labour and forced labour. The contractors/sub-contractors are also required to formulate a control mechanism to ensure their compliance with the abovementioned good practices.



Requirements, Subject Areas, Aspects, General Disclosures and KPIs		Locations of Disclosure or Remarks
Operating Practices		
Aspect B5: Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	<ul style="list-style-type: none"> • Our Approach to Sustainability
KPI B5.1	Number of suppliers by geographical region.	<ul style="list-style-type: none"> • About Airport Authority Hong Kong
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	<ul style="list-style-type: none"> • AAHK has established Procurement Principles and Process to set out the values and principles underlying the procurement and tendering process, including the management of suppliers. We maintain pre-qualified tenderers lists for certain types of works. Companies are assessed across three aspects, technical, financial and legal criteria, for approval and inclusion in the relevant pre-qualification list. • In particular, briefings are organised during the tendering process (i.e., any purchases with an estimated value above HK\$2M are normally managed by open and competitive tender procedures) to clearly communicate our requirements and expectations with tenderers. Debriefing will also be arranged to explain the relative advantages of successful tenders. • AAHK also provides incentives to certain contracts to encourage better performance from its contractors. For example, incentives are offered to contractors of 3RS-related works for meeting specific environmental criteria outlined in contracts.
KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	<ul style="list-style-type: none"> • Our Approach to Sustainability
KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	<ul style="list-style-type: none"> • AAHK has established a Green Procurement Policy which sets out its commitment to integrate environmental considerations into the procurement process, with the aim of continuous improvement amidst industrial, commercial and technological constraints. A Guidance Note on Green Procurement was created to provide assistance in the implementation of the policy along the procurement process.



Requirements, Subject Areas, Aspects, General Disclosures and KPIs		Locations of Disclosure or Remarks
Aspect B6: Product Responsibility		
General Disclosure	Information on: a) the policies; and b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	<ul style="list-style-type: none"> • Our Approach to Sustainability
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	<ul style="list-style-type: none"> • This KPI is not relevant to AAHK's business in managing, operating and developing HKIA. • The HKairportShop.com is an online shopping platform operated by AAHK through an outsourced contractor. The online shop enables passengers and customers to shop online for products offered by retail tenants operating at HKIA. While AAHK is not involved in any product quality and product recalls issues, it has included terms and/or procedures to guide the online shop contractor and logistics partner in dealing with cases of product quality and product recalls.
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	<ul style="list-style-type: none"> • Performance Data
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	<ul style="list-style-type: none"> • Our Approach to Sustainability
KPI B6.4	Description of quality assurance process and recall procedures.	<ul style="list-style-type: none"> • This KPI is not relevant to AAHK's business in managing, operating and developing HKIA. • The HKairportShop.com is an online shopping platform operated by AAHK through an outsourced contractor. The online shop enables passengers and customers to shop online for products offered by retail tenants operating at HKIA. While AAHK is not involved in any product quality and product recalls issues, it has included terms and/or procedures to guide the online shop contractor and logistics partner in dealing with cases of product quality and product recalls.
KPI B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	<ul style="list-style-type: none"> • Our Approach to Sustainability; • World-class Gateway • AAHK's privacy policy, which is available on its corporate website, details its commitment to safeguarding data privacy and ensuring compliance with the Personal Data (Privacy) Ordinance (Cap.486) of the Laws of the Hong Kong Special Administrative Region when collecting, retaining, and/or using the collected personal data.



Requirements, Subject Areas, Aspects, General Disclosures and KPIs		Locations of Disclosure or Remarks
Aspect B7: Anti-corruption		
General Disclosure	Information on: a) the policies; and b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	<ul style="list-style-type: none"> • Our Approach to Sustainability
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	<ul style="list-style-type: none"> • Our Approach to Sustainability
KPI B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	<ul style="list-style-type: none"> • Our Approach to Sustainability
KPI B7.3	Description of anti-corruption training provided to directors and staff.	<ul style="list-style-type: none"> • Our Approach to Sustainability; • Performance Data
Community		
Aspect B8: Community Investment		
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	<ul style="list-style-type: none"> • Our Approach to Sustainability; • Community
KPI B8.1	Focus areas of contribution (e.g., education, environmental concerns, labour needs, health, culture, sport).	<ul style="list-style-type: none"> • Greenest Airport; • Community; • Performance Data
KPI B8.2	Resources contributed (e.g., money or time) to the focus area.	<ul style="list-style-type: none"> • Greenest Airport; • Performance Data

Appendix IV

GRI Content Index

GRI Standards > General Disclosures

GRI 102: General Disclosures 2016

Disclosure	Description	Sustainability Report 2020/21/Other references	AAHK's direct response/reasons for omission
Organisational Profile			
102-1	Name of the organisation	<ul style="list-style-type: none"> About Airport Authority Hong Kong 	
102-2	Activities, brands, products, and services	<ul style="list-style-type: none"> About Airport Authority Hong Kong Corporate Website: Introduction 	
102-3	Location of headquarters	<ul style="list-style-type: none"> About Airport Authority Hong Kong 	
102-4	Location of operations	<ul style="list-style-type: none"> About Airport Authority Hong Kong 	
102-5	Ownership and legal form	<ul style="list-style-type: none"> About Airport Authority Hong Kong 	
102-6	Markets served	<ul style="list-style-type: none"> About Airport Authority Hong Kong Annual Report 2020/21 (pages 55, 62, 87-88, 160) 	
102-7	Scale of the organisation	<ul style="list-style-type: none"> About Airport Authority Hong Kong Performance Data Annual Report 2020/21 (pages 83-84, 86-87, 99-101, 131-132) 	
102-8	Information on employees and other workers	<ul style="list-style-type: none"> Performance Data 	<ul style="list-style-type: none"> The delivery of the majority of services related to the HKIA's operational functions is outsourced to business partners, including franchisees, licensees and tenants. AAHK conducts workforce survey amongst the companies and organisations operating at HKIA from time to time to update the manpower situation and projection to facilitate related planning of HKIA. The latest survey was conducted in 2019. According to the 2019 Survey, there were about 78,000 people working at HKIA.



Disclosure	Description	Sustainability Report 2020/21/ Other references	AAHK's direct response/ reasons for omission
102-9	Supply chain	<ul style="list-style-type: none"> About Airport Authority Hong Kong 	
102-10	Significant changes to the organisation and its supply chain	<ul style="list-style-type: none"> About Airport Authority Hong Kong Airport City 	
102-11	Precautionary Principle or approach	<ul style="list-style-type: none"> Annual Report 2020/21 (pages 44-47) 	
102-12	External initiatives	<ul style="list-style-type: none"> Memberships and External Initiatives 	
102-13	Membership of associations	<ul style="list-style-type: none"> Memberships and External Initiatives 	
Strategy			
102-14	Statement from senior decision-maker	<ul style="list-style-type: none"> Chairman's Message CEO's Message 	
Ethics and Integrity			
102-16	Values, principles, standards, and norms of behaviour	<ul style="list-style-type: none"> About Airport Authority Hong Kong Our People Corporate Website: Vision, Mission & Values 	
Governance			
102-18	Governance structure	<ul style="list-style-type: none"> Our Approach to Sustainability Annual Report 2020/21 (pages 17, 21-26) 	
102-20	Executive-level responsibility for economic, environmental, and social topics	<ul style="list-style-type: none"> Our Approach to Sustainability 	
102-22	Composition of the highest governance body and its committees	<ul style="list-style-type: none"> Annual Report 2020/21 (pages 12-14, 17, 21-26) 	
Stakeholder Engagement			
102-40	List of stakeholder groups	<ul style="list-style-type: none"> Our Approach to Sustainability 	
102-41	Collective bargaining agreements		<ul style="list-style-type: none"> Not reported – The majority of AAHK employees are in Hong Kong where there is no statutory recognition of collective bargaining agreements.



Disclosure	Description	Sustainability Report 2020/21/ Other references	AAHK's direct response/ reasons for omission
102-42	Identifying and selecting stakeholders	• Our Approach to Sustainability	
102-43	Approach to stakeholder engagement	• Our Approach to Sustainability	
102-44	Key topics and concerns raised	• Our Approach to Sustainability	
Reporting Practices			
102-45	Entities included in the consolidated financial statements	• About this Report • Annual Report 2020/21 (pages 117-121)	
102-46	Defining report content and topic Boundaries	• Our Approach to Sustainability	
102-47	List of material topics	• Our Approach to Sustainability	
102-48	Restatements of information	• Performance Data	
102-49	Changes in reporting	• About this Report	
102-50	Reporting period	• About this Report • Performance Data	
102-51	Date of most recent report	• About this Report	• The previous AAHK Sustainability Report was published in March 2021.
102-52	Reporting cycle	• About this Report	
102-53	Contact point for questions regarding the report	• About this Report	
102-54	Claims of reporting in accordance with the GRI Standards	• About this Report	
102-55	GRI content index	• GRI Content Index	
102-56	External assurance	• About this Report • Verification Statement	

GRI Standards > Material topics

GRI 200 Economic Standard Series

Disclosure	Description	Sustainability Report 2020/21/Other references	AAHK's direct response/reasons for omission
Economic Performance			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> About Airport Authority Hong Kong Airport City 	
103-2	The management approach and its components	<ul style="list-style-type: none"> Annual Report 2020/21 (pages 82-88) 	
103-3	Evaluation of the management approach		
GRI 201: Economic Performance 2016			
201-1	Direct economic value generated and distributed	<ul style="list-style-type: none"> About Airport Authority Hong Kong Performance Data 	
201-2	Financial implications and other risks and opportunities due to climate change	<ul style="list-style-type: none"> Greenest Airport 	
201-3	Defined benefit plan obligations and other retirement plans	<ul style="list-style-type: none"> Annual Report 2020/21 (pages 128-131) 	
201-4	Financial assistance received from government	<ul style="list-style-type: none"> Annual Report 2019/20 (page 87) Annual Report 2020/21 (page 86) 	
Market Presence			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> Airport City Annual Report 2020/21 (pages 57-58) 	
103-2	The management approach and its components		
103-3	Evaluation of the management approach		
GRI 202: Market Presence 2016			
202-2	Proportion of senior management hired from the local community	<ul style="list-style-type: none"> Annual Report 2020/21 (pages 12-15) Corporate Website: Board & Management 	



Disclosure	Description	Sustainability Report 2020/21/ Other references	AAHK's direct response/ reasons for omission
Indirect Economic Impacts			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> Airport City Corporate Website: From City Airport to Airport City 	
103-2	The management approach and its components		
103-3	Evaluation of the management approach		
GRI 203: Indirect Economic Impacts 2016			
203-1	Infrastructure investments and services supported	<ul style="list-style-type: none"> Airport City World-class Gateway Corporate Website: Three-runway System 	
203-2	Significant indirect economic impacts	<ul style="list-style-type: none"> Airport City World-class Gateway Corporate Website: Three-runway System 	
Anti-corruption			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> Our Approach to Sustainability 	
103-2	The management approach and its components		
103-3	Evaluation of the management approach		
GRI 205: Anti-corruption 2016			
205-3	Confirmed incidents of corruption and actions taken	<ul style="list-style-type: none"> Our Approach to Sustainability 	



GRI 300 Environmental Standard Series

Disclosure	Description	Sustainability Report 2020/21/Other references	AAHK's direct response/ reasons for omission
Energy			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> Our Approach to Sustainability Greenest Airport 	
103-2	The management approach and its components		
103-3	Evaluation of the management approach		
GRI 302: Energy 2016			
302-1	Energy consumption within the organisation	<ul style="list-style-type: none"> Performance Data 	
302-3	Energy intensity	<ul style="list-style-type: none"> Performance Data 	
302-4	Reduction of energy consumption	<ul style="list-style-type: none"> Greenest Airport 	
Biodiversity			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> Greenest Airport 	
103-2	The management approach and its components		
103-3	Evaluation of the management approach		



Disclosure	Description	Sustainability Report 2020/21/ Other references	AAHK's direct response/ reasons for omission
GRI 304: Biodiversity 2016			
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	<ul style="list-style-type: none"> Greenest Airport 	
304-2	Significant impacts of activities, products, and services on biodiversity		
304-3	Habitats protected or restored		
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations		
Emissions			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> Our Approach to Sustainability Greenest Airport 	
103-2	The management approach and its components		
103-3	Evaluation of the management approach		
GRI 305: Emission 2016			
305-1	Direct (scope 1) GHG emissions	<ul style="list-style-type: none"> Performance Data 	
305-2	Energy indirect (Scope 2) GHG emissions		
305-3	Other indirect (Scope 3) GHG emissions		
305-4	GHG emissions intensity		



Disclosure	Description	Sustainability Report 2020/21/Other references	AAHK's direct response/reasons for omission
Effluents and Waste			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> • Our Approach to Sustainability • Greenest Airport 	
103-2	The management approach and its components		
103-3	Evaluation of the management approach		
GRI 306: Effluents and Waste 2016			
306-2	Waste by type and disposal method	<ul style="list-style-type: none"> • Performance Data 	
Environmental Compliance			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> • Our Approach to Sustainability • Greenest Airport 	
103-2	The management approach and its components		
103-3	Evaluation of the management approach		
GRI 307: Environmental Compliance 2016			
307-1	Non-compliance with environmental laws and regulations	<ul style="list-style-type: none"> • Our Approach to Sustainability 	

GRI 400 Social Standard Series

Disclosure	Description	Sustainability Report 2020/21/ Other references	AAHK's direct response/ reasons for omission
Employment			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> Our Approach to Sustainability Our People 	
103-2	The management approach and its components		
103-3	Evaluation of the management approach		
GRI 401: Employment 2016			
401-1	New employee hires and employee turnover	<ul style="list-style-type: none"> Performance Data 	
401-3	Parental leave		
Occupational Health and Safety			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> Our Approach to Sustainability World-class Gateway 	
103-2	The management approach and its components		
103-3	Evaluation of the management approach		
GRI 403: Occupational Health and Safety 2018			
403-1	Occupational health and safety management system	<ul style="list-style-type: none"> World-class Gateway Our People 	<ul style="list-style-type: none"> AAHK has put in place a Safety Management System (SMS) which addresses occupational health and safety risks. The SMS enables AAHK to effectively assess risk and develop solutions, thus improving risk management decision-making and increasing AAHK's ability to target resources to those issues appropriately. The SMS makes reference to the requirements stipulated in the followings: <ul style="list-style-type: none"> ICAO Doc 9859 Safety Management Manual Occupational Safety and Health Ordinance (Cap. 509, The Laws of Hong Kong)

Disclosure	Description	Sustainability Report 2020/21/Other references	AAHK's direct response/reasons for omission
403-2	Hazard identification, risk assessment, and incident investigation		<ul style="list-style-type: none"> Safety hazards are identified through safety inspection, incident investigation, and hazard reporting followed by risk assessment. Hazards must be eliminated where practicable. Where not practicable, risk reduction will be pursued according to the hierarchy of risk mitigation – risk elimination, substitution, engineering controls, administrative controls, and personal protective equipment. AAHK has established a hazard reporting system for the airport community which is voluntary and non-punitive and affords protection to the sources of the information. There are various channels for reporting aviation occurrences or hazards, including telephone hotline, facsimile, hazard report form and online. Where incident happens, preliminary investigation will be conducted followed by responsible departments on implementing corrective measures, if appropriate.
403-3	Occupational health services	<ul style="list-style-type: none"> Our People 	<ul style="list-style-type: none"> AAHK implements its Corporate Occupational Safety and Health (OSH) Management Plan to provide a safe and healthy workplace and achieve legal OSH compliance. OSH hazards are identified, assessed, and monitored with a risk control process in place. Training is provided to ensure staff are equipped with the required knowledge and ability to carry out their duties in a competent and safe manner.
403-4	Worker participation, consultation, and communication on occupational health and safety	<ul style="list-style-type: none"> World-class Gateway 	<ul style="list-style-type: none"> At AAHK, key departments run various operational or safety committees/working groups, which meet regularly to discuss and review health and safety matters for continual improvement. Safety programmes and initiatives are communicated to all staff and workers via various appropriate channels such as management briefing, bulletin, circular, handbook, poster, and video, etc.
403-5	Worker training on occupational health and safety	<ul style="list-style-type: none"> World-class Gateway 	<ul style="list-style-type: none"> AAHK arranges mandatory basic safety training and safety awareness testing for airport restricted area permit holders, baggage hall operators, and works contractors and safety briefings for non-permit holders. We also organise theme-specific and airport-wide safety promotion programmes for the airport community.
403-6	Promotion of worker health	<ul style="list-style-type: none"> World-class Gateway Our People 	<ul style="list-style-type: none"> AAHK organises a variety of classes, lunch seminars, outing activities among others to promote work-life balance and well-being of airport staff through Hong Kong International Airport Recreation and Community Engagement.
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	<ul style="list-style-type: none"> World-class Gateway 	<ul style="list-style-type: none"> AAHK monitors the implementation of safety management systems across its franchisees, licensees, and contractors through regular safety inspection and audit programmes, and organises safety recognition schemes for its airport business partners to encourage good safety practices and innovative safety suggestions from all airport staff.
403-9	Worked-related injuries	<ul style="list-style-type: none"> Performance Data 	



Disclosure	Description	Sustainability Report 2020/21/Other references	AAHK's direct response/reasons for omission
Training and Education			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> • Our Approach to Sustainability • Our People 	
103-2	The management approach and its components		
103-3	Evaluation of the management approach		
GRI 404: Training and Education 2016			
404-1	Average hours of training per year per employee	<ul style="list-style-type: none"> • Performance Data 	
404-2	Programmes for upgrading employee skills and transition assistance programmes	<ul style="list-style-type: none"> • Our People 	
Diversity and Equal Opportunity			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> • Our Approach to Sustainability • Our People 	
103-2	The management approach and its components		
103-3	Evaluation of the management approach		
GRI 405: Diversity and Equal Opportunity			
405-1	Diversity of governance bodies and employees	<ul style="list-style-type: none"> • Performance Data • Annual Report 2020/21 (pages 12-14, 19) 	
405-2	Ratio of basic salary and remuneration of women to men	<ul style="list-style-type: none"> • Performance Data 	



Disclosure	Description	Sustainability Report 2020/21/Other references	AAHK's direct response/reasons for omission
Customer Health and Safety			
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	<ul style="list-style-type: none"> • Our Approach to Sustainability • World-class Gateway 	
103-2	The management approach and its components		
103-3	Evaluation of the management approach		
GRI 416: Customer Health and Safety 2016			
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	<ul style="list-style-type: none"> • Our Approach to Sustainability 	

GRI G4 Airport Operators Sector Disclosures

Disclosure	Description	Sustainability Report 2020/21/Other references	AAHK's direct response/reasons for omission
Market Presence			
G4-A01	Total number of passengers annually	<ul style="list-style-type: none"> • Performance Data 	
G4-A02	Total annual number of aircraft movements		
G4-A03	Total amount of cargo tonnage		
Effluents and Waste			
G4-A06	Aircraft and pavement de-icing/anti-icing fluid used and treated		<ul style="list-style-type: none"> • This indicator is not applicable to HKIA. De-icing/anti-icing is not required due to the climate of HKIA's geographic location.
Customer Health and Safety			
G4-A09	Total annual number of wildlife strikes per 10,000 aircraft movements	<ul style="list-style-type: none"> • Performance Data • Sustainability Report 2013/14 – Wildlife Hazard Management (page 26) 	

Correlation between AAHK's most important sustainability issues and GRI Standards

Material issues – Definition	Related GRI Standards
Economic & Society	
• Air cargo strategy – Develop HKIA into a high-value air cargo hub to capture demands for e-commerce and temperature-controlled cargo	Market Presence Indirect Economic Impacts
• Connectivity – Strengthen HKIA's global air network and connectivity in the Greater Bay Area to reinforce its hub status	Market Presence
• Economic and social contribution – Strengthen HKIA as a key driver for the economic and social growth of Hong Kong	Indirect Economic Impacts
• Financial management – Strengthen AAHK's ability to operate and maintain financial sustainability with prudent financial discipline	Economic Performance
• Infrastructure development – Develop HKIA as an Airport City by implementing infrastructure development projects	Indirect Economic Impacts
Environment	
• Carbon and energy – Minimise energy consumption and GHG emissions generated from the operation and development of HKIA	Energy Emissions
• Climate-related risks and impacts – Evaluate the risks arising from climate change and manage its impacts on the operation and development of HKIA	
• Environmental management – Implement an environmental management system to manage, measure and continuously enhance HKIA's environmental performance	
• Green design and construction – Incorporate environmental considerations and green design elements at the design and construction stages of HKIA's development projects	
• Waste – Reduce and recycle the solid waste generated from the operation and development of HKIA	Effluents and Waste

Material issues – Definition	Related GRI Standards
Operating Practices	
• Airport safety and security – Maintain a safe aerodrome and ensure the safety and security of passengers, airport staff and other airport users	Customer Health and Safety
• Contingency planning – Identify and respond to potential disruptions that may affect airport operations and strengthen operational resilience of HKIA	
• Customer experience – Maintain the highest standards of service quality and enrich the customer/passenger experience	
• Cybersecurity and information security – Protect HKIA's systems and networks from cyber-attacks and ensure the confidentiality and integrity of AAHK's data and information assets	
• Innovation and technology – Accelerate the transformation of HKIA into a fully digitalised airport by employing innovative technologies	
People	
• Attracting talent – Attract and recruit the right talent to meet business needs	Employment
• Employee engagement – Engage AAHK's employees through various communication platforms and staff activities	Employment
• Employee well-being – Maintain a safe workplace and promote physical health, mental health and social well-being of AAHK's employees	Employment Occupational Health and Safety
• Retention and turnover – Strengthen AAHK's ability to retain staff and monitor staff turnover	Employment Training and Education
• Training and career development – Provide training and development opportunities to equip AAHK's employees with necessary competencies and skills	Training and Education

Appendix V

Verification Statement

Scope and Objective

Hong Kong Quality Assurance Agency (“HKQAA”) has conducted an independent verification for the Sustainability Report 2020/21 (“The Report”) of Airport Authority Hong Kong (“AAHK”). The Report illustrates AAHK’s sustainability commitments, strategies, plans and targets as well as performance achievement for the period from 1st April 2020 to 31st March 2021. It mainly covers AAHK’s core business in the operation and development of Hong Kong International Airport. Reference is also made to the AAHK’s subsidiaries and outsourced operations where relevant.

The objective of this verification is to provide a reasonable assurance on the reliability of the data and information disclosed in the Report. The Report has been prepared in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (“GRI Standards”): Core option and the GRI G4 Airport Operators Sector Disclosures. AAHK also voluntarily disclosed the Report in compliance with the Hong Kong Exchanges and Clearing Limited Environmental, Social and Governance Reporting Guide (“HKEX ESG Guide”).

Level of Assurance and Methodology

The verification process was conducted according to:

- International Standard on Assurance Engagement (ISAE) 3000 (Revised) – *“Assurance Engagement Other Than Audits or Reviews of Historical Financial Information”* issued by the International Auditing and Assurance Standards Board;
- GRI Standards and the GRI G4 Airport Operators Sector Disclosures; and
- HKEX ESG Guide.

The process included the review of internal data collection and management mechanism, interview with personnel responsible for preparing the Report, and checking the raw activity data and supporting evidence of the selected data and information samples.

Independence

Our verification is independent and impartial. There is no relationship between AAHK and HKQAA beyond the contractual agreement for providing the verification service.

Conclusion

Based on the verification results, HKQAA has obtained a reasonable assurance and is in the opinion that:

- The Report has been prepared in accordance with the GRI Standards: Core option, GRI G4 Airport Operators Sector Disclosures and HKEX ESG Guide;
- The Report illustrates AAHK’s sustainability performance, covering all relevant material aspects in a balanced, comparable and timely manner; and
- The data and information disclosed in the Report are accurate and reliable.

In conclusion, the Report provides clear information for stakeholders to make informative decision on AAHK’s sustainability commitments, performance achievement and status of progress.

Signed on behalf of Hong Kong Quality Assurance Agency

Connie Sham
Head of Audit
October 2021

Appendix VI

Memberships and External Initiatives

Memberships (AAHK's role in organisations)*

Chair / Co-chair / Vice-chair	<ul style="list-style-type: none"> • Airports Council International (ACI) World Environment Standing Committee* • ACI Asia-Pacific Regional Human Resources Committee • Aviation Fuel Facility Management Association of HKIA • Environment & Sustainability Committee, Hong Kong General Chamber of Commerce*
Member	<ul style="list-style-type: none"> • ACI • ACI Asia-Pacific • Association for Project Management • Aviation Security Committee, Security Bureau • Business Environment Council • Building Information Modelling Appeal Board, Construction Industry Council (CIC) • Building Information Modelling Certification and Accreditation Board, CIC • Committee on Building Information Modelling, CIC • Committee on Environment, CIC • CLP Local Customer Advisory Committee

Member	<ul style="list-style-type: none"> • Departmental Advisory Committee, Department of Electrical Engineering, The Hong Kong Polytechnic University • Energy Liaison Group, HKSAR Government • Hong Kong Association for Customer Service Excellence • Hong Kong Internet of Things Alliance • Hong Kong Logistics Development Council • Hong Kong Trade Development Council – Logistics Services Advisory Committee • Occupational Safety and Health Council – Logistics and Freight Transport Industry Safety and Health Committee • Occupational Safety and Health Working Group of the Commerce, Industry and Housing Committee of Tuen Mun District Council • Pharma.Aero • The Hong Kong Green Building Council • The Lighthouse Club Hong Kong • Treasury Markets Association
Trustee	<ul style="list-style-type: none"> • The International Air Cargo Association

* AAHK acted in the capacity of Chair, Co-chair, or Vice-chair up to 30 November 2020.

External Initiatives (Year of adoption by AAHK)

Airport- /Aviation-related	<ul style="list-style-type: none"> • Airport Authority Ordinance, Chapter 483, The Laws of Hong Kong (1995)* • Aerodrome Licensing Requirements Document, Civil Aviation Department (1998)* • ICAO International Standards and Recommended Practices (1998)*
Corporate Governance	<ul style="list-style-type: none"> • Companies Ordinance, Chapter 622, The Laws of Hong Kong (1998) • Corporate Governance Code and Corporate Governance Report, Appendix 14 of the Listing Rules of Hong Kong Stock Exchange (2002/03)
Environment	<ul style="list-style-type: none"> • Clean Air Charter, Hong Kong General Chamber of Commerce & Hong Kong Business Coalition on the Environment (2007) • Hong Kong Green Purchasing Charter, Green Council (2007) • Programme on Source Separation of Commercial and Industrial Waste, Environmental Protection Department (EPD) (2007) • Aviation Industry Commitment to Action on Climate Change, Enviro.aero (2008) • Carbon Reduction Charter: Carbon Audit • Green Partner, EPD (2008) • Manifesto for Energy Efficiency in Buildings, World Business Council for Sustainable Development (2012) • Energy Saving Charter on 'No ILB', Electrical and Mechanical Services Department (2013) • Food Wise Charter, EPD (2013) • 'Let's Save 10L Water' Campaign, Water Supplies Department (2013) • The Greening Partner Charter, Development Bureau (2013) • Wood Recycling & Tree Conservation Scheme, Hong Kong Environmental Protection Association (2013)

Environment	<ul style="list-style-type: none"> • Waste Check Charter, EPD (2015) • Hong Kong Cooking Oil Registration Scheme and HKQAA Hong Kong Registration – Recycling Services, Hong Kong Quality Assurance Agency (2015) • Hong Kong Zero Carbon Partnership, The University of Hong Kong (2015) • Innovation Partner of CarbonCare Open Innovation Lab, CarbonCare InnoLab (2015) • EP100 and EV100, The Climate Group (2019) • Low Carbon Charter, Business Environment Council (2019) • United for Wildlife Transport Taskforce Buckingham Palace Declaration, The Royal Foundation (2019) • Equator Principles (2020)#
Safety	<ul style="list-style-type: none"> • Occupational Safety Charter, Occupational Safety and Health Council (2001)
Social Responsibility	<ul style="list-style-type: none"> • Talent-Wise Employment Charter and Inclusive Organisations Recognition Scheme, Labour and Welfare Bureau (2013)
Others	<ul style="list-style-type: none"> • Agreement on Government Procurement of the World Trade Organization (1998)*

* AAHK has an obligation to comply with these principles and charters.

AAHK arranged HK\$35 billion term and revolving credit facilities in 2020 which is compliant with Equator Principles.

Appendix VII

Task Force on Climate-related Financial Disclosures (TCFD) Statement

Strengthening the Resilience of Our Airport

The impacts of climate change are already being observed globally, with organisations and communities experiencing increased intensity and frequency of extreme weather events, prolonged droughts, and rising temperatures and sea levels. In tandem, global and regional efforts are being made to steady and reduce the volume of greenhouse gas (GHG) emissions generated from human activity, through a concerted transition to low carbon.

As critical infrastructure assets and gateways for regional and international business, trade and travel, airports need to understand and manage climate-related risks, initiate adaptation measures, and respond to the transition to a low-carbon economy to reduce operational disruptions and improve resilience.

Our Response to Managing Climate-related Risk

Hong Kong International Airport (HKIA) is already exposed to significant extreme weather events. Extreme temperatures and typhoon-driven high sea levels, rainfall and winds are regular occurrences. The limited damage and ability to quickly recover operations, following events like Typhoon Mangkhut and chronic stresses including extreme heat, indicate that the airport currently has a high level of resilience and preparedness.

This Disclosure Statement demonstrates our commitment to managing and reporting on climate-related risk and is aligned to the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Information on Airport Authority Hong Kong's (AAHK) response to climate-related risks is presented in this Disclosure Statement, including the identification of material risks and future controls developed under our Climate Resilience Study.

Current efforts to manage climate-related physical risks:

- We have a Fault Response Team setup for 24-hour response to emergencies and a Passenger Care Team to care for our passengers during emergencies
- We have completed an airport-wide drainage assessment to understand our drainage capacity during increased rainfall intensity
- We have conducted a seawall study to assess the impacts of climate change to the seawall
- Uninterruptable Power System is installed for most of our essential systems
- Implementation of inspection and preventative maintenance programmes for critical infrastructure
- Use of manuals and procedures to guide business planning and response to disruptions including those resulting from climate-related events
- Collaboration with the Hong Kong Observatory (HKO) and Air Traffic Control (ATC) to assess the potential impact and prepare for critical contingency measures prior to extreme weather events

Current efforts to manage climate-related transition risks:

- Undertook a Long Term Carbon Target Study with the intention of developing an airport-wide approach to accelerate the rate of carbon reduction
- Implementation of the HKIA Carbon Reduction Programme, which enabled achievement of HKIA's current Airports Council International (ACI) Airport Carbon Accreditation (ACA) Level 3 'Optimisation' accreditation
- Endorsement and implementation of policy and strategy commitments such as the Green Airport Design and Construction Strategy and Energy Policy
- Participation in industry councils, associations and programmes across aviation and business activity in Hong Kong
- We have made consistent efforts to reduce energy consumption as managed by our Energy Management Office and is certified under ISO 50001

The TCFD Recommendations

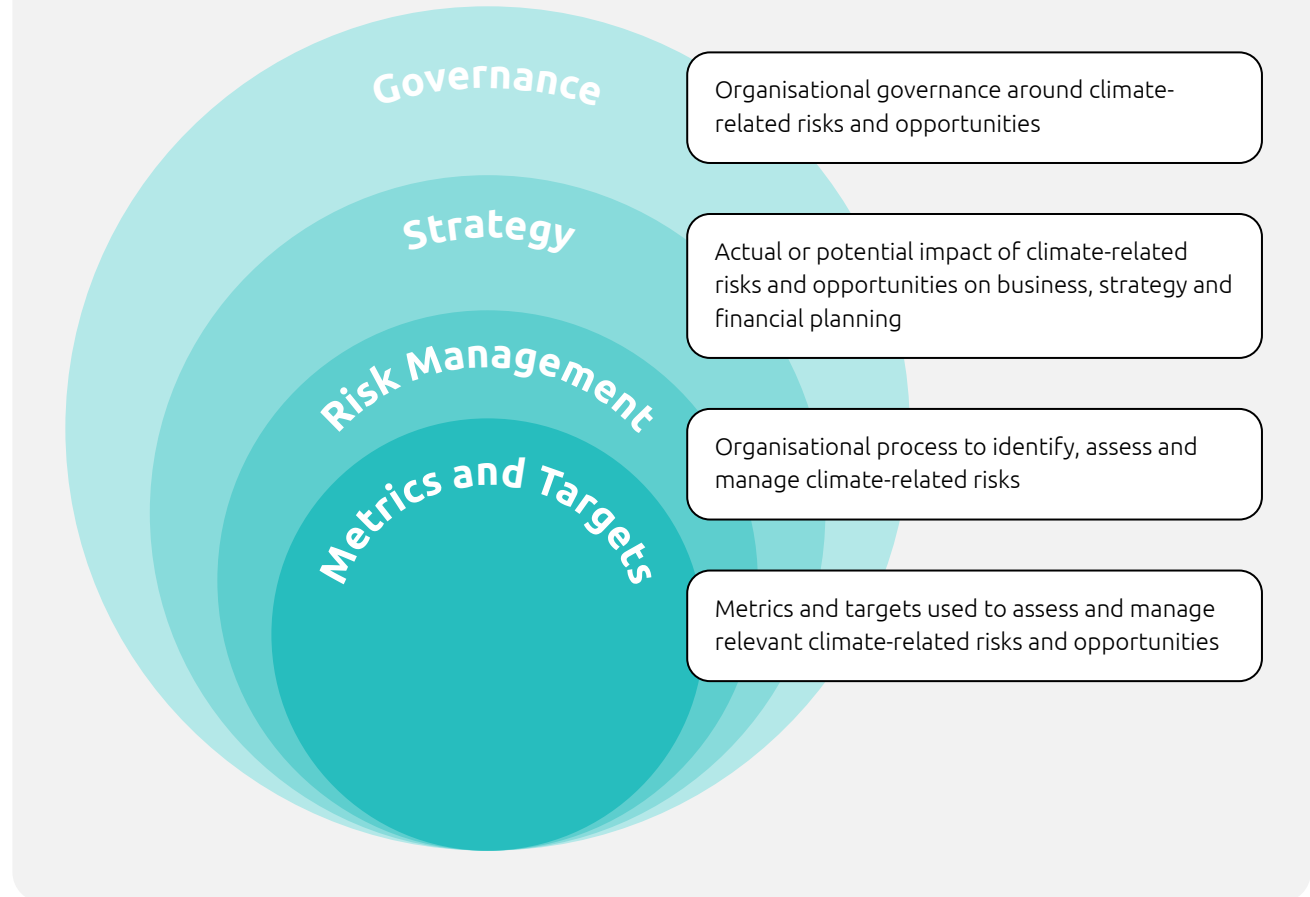
Established by the global Financial Stability Board¹ in 2015 to support efforts to reach the Paris Agreement² targets, the TCFD aims to “promote more informed investment, credit [or lending], and insurance underwriting decisions” and to “enable stakeholders to understand better the concentrations of carbon-related assets in the financial sector and the financial system’s exposures to climate-related risks”.

Published in 2017, the Recommendations provide a framework that guide the reporting and disclosure of material climate-related risks and opportunities (together referred as climate-related issues) within organisations’ financial filings across all sectors, industries and geographies.

The TCFD Recommendations are structured around four thematic areas that represent core elements of an organisation’s operation: governance, strategy, risk management, and metrics and targets.

Central to disclosure, the TCFD recommends climate change risks and opportunities are examined in relation to both physical risks (direct damage to assets, resources, supply chains) and transition risks (associated with policy, legal, technological and market changes resulting from a transition to a low-carbon economy).

Core elements of recommended climate-related financial disclosures



1. The Financial Stability Board (FSB) is an international body that monitors and makes recommendations about the global financial system.

2. The Paris Agreement is the global agreement to limit global warming to well below 2°C above pre-industrial levels, and pursue efforts to limit warming to 1.5°C, reached at the United Nations Framework Convention on Climate Change 21st Conference of the Parties (COP21) in Paris in 2015.

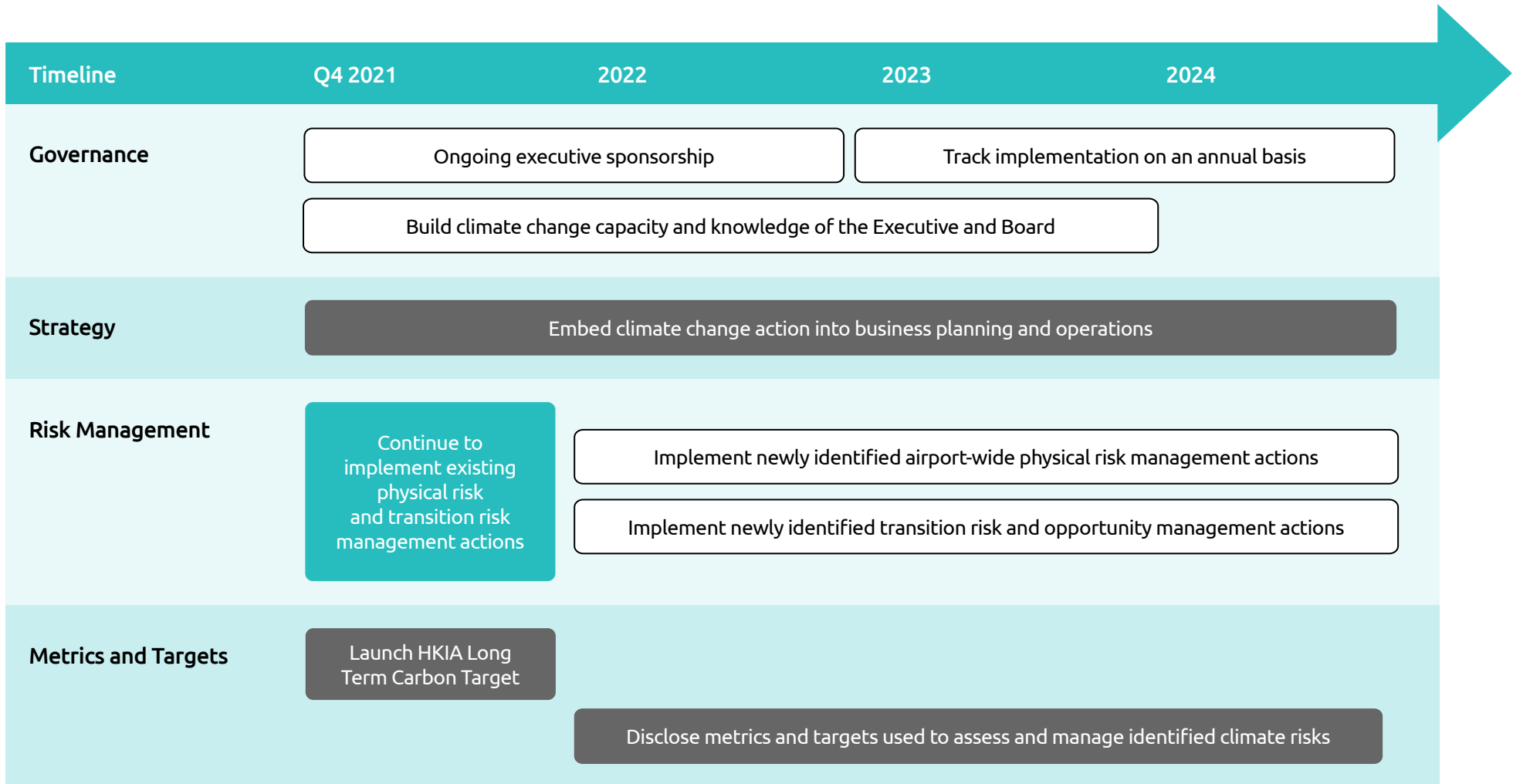


Figure 1 AAHK's TCFD Reporting and Implementation Roadmap

Governance

Disclose the organisation's governance around climate-related risks and opportunities.

TCFD Disclosure	Status
a) Describe the Board's oversight of climate-related risks and opportunities	Established – continue and improve
b) Describe management's role in assessing and managing climate-related risks and opportunities	Established – continue and improve

The governance framework established for HKIA comprises multiple layers of responsibility and reporting against environmental, sustainability and climate-related matters.

Board level

Pursuant to the Airport Authority Ordinance, several Board Committees have been established to advise the AAHK Board and/or decide on matters within the remit of that particular committee. The Business Development Committee oversees and makes Board recommendations regarding business strategies, including commercial and business development plans, operational commitments and sustainability. The Business Development Committee is also responsible for overseeing AAHK's sustainability strategy.

AAHK's CEO has oversight of environmental and sustainability issues through the endorsement of key policies which influence the management of climate-related issues, including:

- Corporate Environmental Policy Statement, identifying and prioritising key environmental aspects that must include climate change and carbon reduction;
- Energy Policy, supporting leading energy management, efficiency and conservation; and
- Green Procurement Policy, promoting environmental best practice along the supply chain.

Senior management level

The Executive Director, Third Runway is responsible for AAHK's sustainability management and performance. Senior management is invited to provide feedback on identified climate and sustainability related risks and endorse priority risks.

AAHK has established a Sustainability Executive Taskforce which is chaired by AAHK's CEO and attended by the Executive Directors as well as the General Manager, Sustainability. The taskforce is responsible for driving and overseeing the progress of key sustainability initiatives and programmes, including the Long Term Carbon Target and climate resilience programmes, and is supported by the Internal Sustainability Committee at the General Managers' level.

Department and cross-functional level

AAHK's Sustainability Department is responsible for the development and implementation of AAHK's sustainability strategy, implementation plans and reporting systems. The Sustainability Department is also responsible for managing the Climate Resilience Study and Long Term Carbon Target, which have provided important insight into the existing controls and further opportunities relevant to climate risk governance and management. The Sustainability Department is supported by the Environmental Management System Working Group, a diverse group comprising of members from all departments within AAHK, who assist in developing and implementing environmental actions.

Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is available.

TCFD Disclosure	Status
a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term	Initiated – develop and implement
b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning	Initiated – develop and implement
c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	Initiated – develop and implement

Climate change is a pervasive issue that affects all organisations and communities. Identifying and responding to climate-related risks today helps to ensure ongoing sustainable and resilient activities in the future.

We have a dedicated Climate Resilience Team within the Sustainability Department, who manages AAHK's key action plans for carbon management and climate adaptation and resilience. From our Climate Resilience Study and our Long Term Carbon Target Study, we are committed to allocating resources to implement adaptation and mitigation actions, and monitor and reassess our climate-related risks.

In addition, within our Sustainability Report, material issues are consolidated into four categories: Economic and Society, Environment, Operating Practices, and People. In our Sustainability Report 2020/21, AAHK identified climate-related risks and impacts and carbon and energy as top issues in the Environment category. We have since completed the Climate Resilience Study providing us with important insights to the material climate-related risks and opportunities faced by HKIA.

Climate Resilience Study

In 2020 we commissioned a Climate Resilience Study to identify and assess our climate-related risks. The aim of the study was to understand which climate-related risks were pertinent to AAHK, key interdependencies and to identify existing controls and future actions to respond and adapt to these risks. A cross-departmental Steering Committee was established for the Climate Resilience Study to promote collaborative input and knowledge sharing, and provide endorsement of key outputs of the study that would serve to improve AAHK's response and resilience to climate change.

Scenario analysis

Scenario analysis is an important tool for understanding and exploring the strategic implications of climate-related transition and physical risks and opportunities. As part of our Climate Resilience Study, we applied the consideration of multiple scenarios to determine the types of climate-related risks and opportunities that might be relevant to AAHK and airport operations.

Four climate scenarios were considered in undertaking the Climate Resilience Study and adopted from the Intergovernmental Panel on Climate Change (IPCC) Representative Concentration Pathways (RCPs) (refer to Table 1). On one end of the emissions trajectory, RCP8.5 models minimal or insufficient effort to reduce emissions, resulting in the highest modelled global temperature change. On the other end, RCP2.6 represents strong mitigation efforts with early participation from all emitters, leading to a reduction of emissions to net zero by 2070. The study also considered an additional sea level rise scenario (i.e. H++³) that provides an even higher possible rate of sea level rise.

Following the completion of the Climate Resilience Study, the IPCC released its latest report in its 6th assessment cycle (AR6): *Climate Change 2021: The Physical Science Basis*. The report provides greater confidence in the previously published trends of higher temperatures, more extreme weather and higher sea levels. AR6 presents revised climate scenarios (i.e. Shared Socioeconomic Pathways (SSPs)) and associated global and regional climate projections. AAHK's study already takes into account the most extreme scenarios published under AR5, however future reviews of the Climate Resilience Study will assess the AR6 implications of the revised IPCC projections as well as downscaled projections published by the Hong Kong Observatory.

Table 1 Climate scenarios adopted by AAHK

Climate scenario	Temperature change (relative to 1986 – 2005)	Emissions trend	Use in climate resilience study
H++ – Accelerated Sea level rise	N/A	Accelerated rates of sea level rise due to significant acceleration in the melting rate of the land-based ice sheets of Antarctica and Greenland.	Considered for sea level rise in physical risk assessment
RCP8.5 – Business as usual	3.2 – 5.5°C	Continuing current carbon emissions to 2100 and beyond.	Considered in physical risk assessment
RCP6.0 – High-moderate transition	2.0 – 3.7°C	A moderate reduction in carbon emissions which peaks at around 2080, then reduces and stabilises at around 2100.	Considered in physical risk assessment
RCP4.5 – Low-Moderate transition	1.7 – 3.2°C	A moderate reduction in carbon emissions which peaks at around 2045, then reduces and stabilises at around 2080.	Considered in physical risk assessment
RCP2.6 – Accelerated transition	0.9 – 2.3°C	A strong emissions reduction pathway which peaks around 2020 and then rapidly declines, reaching net zero emissions by 2070.	Considered in transition risk assessment

3. The H++ sea level rise scenario was developed by the United States National Oceanic and Atmospheric Administration (NOAA) in 2017 for the country's Fourth National Climate Assessment.

Time horizons

Climate-related risks were identified under the relevant climate scenarios over a series of short, medium and long term time horizons. As part of the physical risk assessment, these time horizons were 2030, 2050 and 2100, which took into consideration the design lives of various asset components assessed under the Climate Resilience Study. For the transition risk assessment, three time horizons were used and described relative to present day – the short term horizon accounted for risks and opportunities occurring now or within the next five years, medium-term referred to a time period between 5-10 years from now and long-term referred to greater than 10 years from now. These time horizons recognised that transition risks and opportunities would most likely arise where there was an accelerated pace of change occurring in the nearer-term rather than by the end of the century. The analysis of climate-related risk against multiple time horizons supports improved understanding of the future performance of AAHK and is in line with the TCFD Recommendations for scenario analysis.

Physical Risks

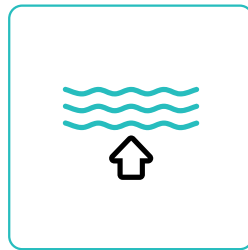
Physical risks are those that relate to climate hazards such as typhoons, storm surges, extreme heat days and extreme rainfall events. These hazards can lead to impacts such as direct damage to assets, resources or supply chains, changing input prices, market impacts or liabilities due to failure to foresee and mitigate losses from any physical risks.

Key climate hazards were identified through a physical risk assessment as part of the Climate Resilience Study, to inform the identification of priority physical risks across critical asset classes. Two studies were also undertaken to assess the protection provided by the seawall and drainage system under multiple climate scenarios. The table on next page presents risks with an inherent risk rating of high in 2030. No extreme risks were identified prior to 2100.

Key climate hazards



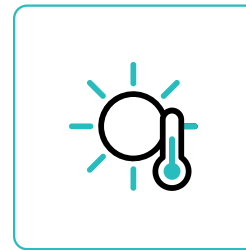
Typhoons and storm surge



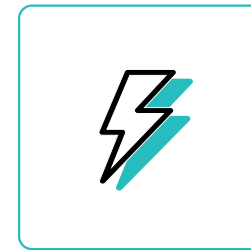
Sea level rise and permanent inundation



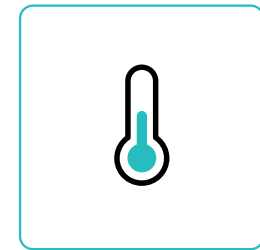
Extreme rainfall and related flooding



Extreme heat events



Lightning strikes



Average annual temperature

Priority physical risks at 2030

Risk	Response summary
<p>Storm events (e.g. rainfall, typhoons, lightning) resulting in disruption to operations including restricted aircraft movements</p> <p>Key asset affected: Airfield</p>	<p>To reduce the impact of this risk, HKIA has an airport lightning warning system, a flight rescheduling control system and follows the Typhoon and Heavy Rainstorm Preparation Guidelines. We will continue to enhance our response through a systematic review and implementation of Business Continuity Manual.</p>
<p>Extreme weather events resulting in worker health and safety impacts leading to restricted movements of ground crew</p> <p>Key asset affected: Airfield</p>	<p>AAHK strictly adheres to Government controls for preventing heat stroke and has shelters for staff to have respite from extreme weather conditions. We will review our policy on Personal Protective Equipment as needed during extreme temperatures, or operational practices and will commence tracking of frequency and intensity of extreme heat and humidity events and implications on staff performance and welfare.</p>
<p>Extreme weather events and / or flooding (e.g. rainfall and storm surge) resulting in limited damage to asset requiring immediate action leading to clean up, repair or partial replacement expenses</p> <p>Key assets affected: Airfield and Airfield Power Distribution System</p>	<p>We have implemented plans, such as the Airfield Pavement System Management Plan and preventative maintenance and have structural elements including the seawall and drainage system, which have been designed to limit the damage to HKIA and AAHK's operations. In the event of an emergency we have an emergency power system and additional resources on call. To enhance our response to this risk, we will be reviewing the condition of our lightning protection system following lightning events. AAHK has undertaken an airport-wide drainage review and assessment as well as a seawall study to assess the impacts of rainfall, storm surge, sea level rise and overtopping. Outputs from the studies will inform the implementation of related adaptation actions.</p>
<p>Flooding (e.g. rainfall, storm surge, sea level rise) and lightning resulting in damage or complete failure of assets leading to operational disruptions and major capital works programme</p> <p>Key asset affected: Baggage Handling Systems</p>	<p>The seawall and drainage system protect HKIA from flooding and we have enhanced this response by undertaking an airport-wide drainage review and assessment.</p> <p>In addition, we have preventative maintenance and other structural elements including typhoon grade shutters. In the event of an emergency we have an emergency power system and additional resources on call. In future, we will engage with other critical asset owners to review system resilience and will continue to follow best available practice to prevent water leakage for new infrastructure.</p>
<p>Sea level rise resulting in inundation of drainage outfalls leading to increased incidence of flooding and overwhelmed drainage systems</p> <p>Key asset affected: Airfield</p>	<p>AAHK has undertaken an airport-wide drainage review and assessment and a seawall study. We also conduct regular monitoring of sea level gauge and inspection of drainage system.</p>

Transition Risks and Opportunities

Transition risks and opportunities refer to adverse and beneficial effects that arise from a rapid or aggressive transition to a low-carbon economy. These include effects specifically associated with:

- *Market and Technology Shifts*: Relating to changes in demand for products due to policy shifts, stranding of assets due to market shifts;
- *Policy and Legal Changes*: Cost and/or revenue impacts resulting from policy changes. Increased liability due to failure to foresee and mitigate losses from any transition risks; and
- *Reputation*: Reputational damage resulting from an organisation's limited response to mitigation needs.

To identify material transition risks and opportunities, relevant external forces, or transition drivers, first had to be identified and prioritised for AAHK. Transition drivers account for the actual or planned shifts in policy, markets and technology which could bring about risks and opportunities associated with the transition to a low-carbon economy. These were identified and developed through extensive review of policy documents, transport and energy market research and stakeholder engagement within AAHK and with selected business partners (BPs). The table on the next pages describes the priority transition risks and opportunities associated with priority transition drivers influencing AAHK's operations and strategic planning.

Priority transition risks and opportunities

Risk	Response summary
Driver: global adoption of net-zero emissions policies and action plans	
<p>Risk that net-zero policies develop ambitious targets for emissions reduction, resulting in increased capital and operational expenditure during the construction and operation period of the Three-Runway System</p>	<p>AAHK and its key aviation-related BPs have committed to achieve Net Zero Carbon by 2050, with a midpoint target of 55% absolute emissions reduction by 2035 from a 2018 baseline. We have developed a Green Airport Design and Construction Strategy and embedded it into our contractual requirements for development projects. We will increase our focus on carbon and energy reduction opportunities across the project lifecycle and investigate possible cost-effective emission reduction options.</p>
Driver: legal liabilities and regulatory approvals	
<p>Risk that future construction and expansion projects will be deemed incompatible with Paris Agreement goals, resulting in regulatory approval delays or non-approval</p>	<p>We have recently completed our Climate Resilience Study to identify and address potential risks. We are also piloting the use of Construction Industry Council's carbon tool on selected projects.</p>
<p>Risk that more stringent decarbonisation requirements will be imposed as part of regulatory approvals for future capital projects and upgrades</p>	<p>In order to reduce these risks, AAHK is currently exploring enhancement of our contractual requirements in tender documentation, to explore opportunities to embed more stringent carbon requirements in the design and construction of capital projects through an Energy Guideline. We will also establish a systemic approach to monitor our compliance with relevant international standards and treaties and the Environmental Protection Department.</p>
Driver: shifting consumer preferences to travel and freight	
<p>Opportunity for AAHK to collaborate with domestic members of the Greater Bay Area to generate increased domestic travel and visitation, resulting in increased revenues</p>	<p>HKIA is a highly accessible airport with existing connection routes and rail links. There is the potential to collaborate further with high speed rail in the future. We are currently constructing a SkyPier Terminal and are planning for new City Terminals and services at strategic locations in the Pearl River Delta (PRD).</p>
<p>Opportunity to accommodate greater freight travel by air in response to increasing consumer demand for international products, resulting in increased revenues</p>	<p>In 2018/19, we established a pharma corridor with Brussels Airport and are accredited to handle temperature-controlled cargo. We are conducting a feasibility study for HKIA to be established as a High Value Air Cargo Hub and are planning for the HKIA Logistics Park which will include new cargo facilities and infrastructure.</p>
Driver: statutory energy and emissions performance standards and reporting requirements	
<p>Risk that energy and emissions performance standards will result in increased capital expenditures in order to meet new requirements</p>	<p>We have management systems to ensure our energy, legal and policy requirements are met. Furthermore, we have an ongoing programme of energy management initiatives which is monitored under ISO 50001. We will review energy saving reinvestment options and other alternative funding options, establish a monitoring and evaluation programme for energy conservation programmes and further develop emissions indicators to set a baseline for ongoing emissions performance. In addition, we will be reviewing our options for cost-effective procurement of on- / off-site carbon offset or renewable energy projects.</p>
<p>Opportunity to meet energy and emissions performance standards which results in reduced operational expenditures</p>	
<p>Opportunity for AAHK to demonstrate commitment and contribution to regional efforts to meet emissions reduction and carbon neutrality targets, resulting in improved asset valuation</p>	<p>AAHK has an existing membership and communication with Business Environment Council and ACI. We are ACA⁴ accredited and are designing our approach to aim to achieve ACA Programme Level 4 by leveraging the findings of our Carbon Study.</p>

4. ACA refers to the Airport Carbon Accreditation, an institutionally endorsed carbon management certification standard for airports, developed by the Airports Council International (ACI).

Priority transition risks and opportunities (Continued)

Risk	Response summary
Driver: uptake of energy efficiency and low-carbon technologies	
<p>Risk of adopting technologies or investing in research and development that does not provide the expected value or benefit</p>	<p>We have robust business case processes for funding approval, including non-financial returns. Our Innovation Centre under the Technovation Board has enabled trialling of new technologies with a considered funding approval process. In the future, AAHK will implement an HKIA Business Partners Carbon Support Programme and a key pillar will be to explore piloting of new technologies collaboratively. Findings will be captured by airport-wide database to share information with the airport community.</p>
<p>Opportunity to investigate new technologies to introduce low-carbon products and services as part of AAHK's service offering, generating new forms of revenue</p>	<p>AAHK has automated numerous operations at HKIA and is investigating the adoption of electric and autonomous vehicles for passenger ground transport. We have also implemented various energy reduction projects such as, replacement of chillers to high efficiency models, application of building analytics, ongoing LED lighting replacement to next generation and installation of a battery energy storage system at a Generator House.</p>
<p>Opportunity to install new technologies to reduce energy use, emissions and associated operational expenditures</p>	<p>An on-stand electric Ground Services Equipment (GSE) Pooling Scheme has also been rolled out to improve the operating efficiency of the ramp-handling process and reduce emissions.</p>
<p>Opportunity to access new forms of capital targeted at new technology research, development and deployment</p>	
Driver: policy enacting carbon pricing mechanisms	
<p>Risk of increased operational expenditures associated with carbon pricing and purchase of carbon offsets</p>	<p>In response to carbon pricing and emissions trading developments, we have established a watching brief on the sector. We will enhance our awareness with a watching brief on energy sector climate commitments and action plans, so we can understand and anticipate grid emissions factors and renewable energy options. Furthermore, AAHK has an existing membership and communication with Business Environment Council and ACI.</p>
<p>Risk that carbon pricing will impact flight volumes and costs across the aviation sector, resulting in reduced revenue for AAHK</p>	
<p>Opportunity to implement energy efficiency measures across assets and operations, mitigating operational cost increases from possible increased energy cost(s) and/or carbon pricing</p>	<p>AAHK and its key aviation-related BPs have committed to achieve Net Zero Carbon by 2050, with a midpoint target of 55% absolute emissions reduction by 2035 from a 2018 baseline. AAHK has a Green Airport Design and Construction Strategy. AAHK will explore increasing the business case for investments in energy efficiency measures to respond to potential carbon pricing signals.</p>
Driver: transformation of air transportation through fuel switching	
<p>Opportunity to contribute to aviation sector emissions reduction through adoption of sustainable aviation fuels (SAF) and delivery of fuel services, resulting in increased demand for airside services from airlines and increased revenues</p>	<p>AAHK is supportive of the use of SAF and maintains a watching brief on the sector. AAHK will work with airlines seeking to use SAF to enable uptake.</p>

Working with the Airport Community

AAHK has a strong focus on working closely with the airport community BPs to encourage collaboration and accelerate environmental footprint reduction. Bi-annual Environmental Community Forums are held with the BPs to discuss updates and monitor progress on key environmental sustainability programmes, share best practices and raise ideas for new areas of interest.

Addressing carbon management, AAHK holds annual Senior Executive Roundtables with our BPs' CEOs to encourage discussion on the high-level business case for carbon reduction. As we move into our next carbon pledge, we will also establish Technology Working Groups with various BPs to identify, evaluate and pilot new energy efficiency technologies. The pilot outcomes will be shared across the airport community to enable scale up of relevant technologies.

Incorporating Resilience in Our Strategic Planning

Addressing AAHK's priority physical and transition risks and opportunities will be undertaken through a considered, stepped approach, guided by an adaptation and resilience plan. Our Climate Resilience Study has identified a number of actions aligned to the core elements of the TCFD Recommendations. Themes were identified to help to guide the order in which actions are proposed to be implemented, beginning with internally focused actions before implementing externally focused ones. The themes include:

- **Establishing commitment and building capacity** within AAHK, aligned to respond to Governance disclosures. This includes sponsorship and endorsement of adaptation actions.
- **Implementing strategic and operational change**, aligned to respond to Strategy and Risk Management disclosures. This includes design and operational actions, tracking internal performance and monitoring international developments.
- **Developing collaborative relationships** through advocacy and stakeholder engagement, to support AAHK's overall climate risk efforts and response to the TCFD.
- **Communicating and disclosing**, aligned to respond to Metrics and Targets disclosures. These efforts would be directed to both targeted financial stakeholders and to the broader public.

Risk Management

Disclose how the organisation identifies, assesses, and manages climate-related risks.

TCFD Disclosure	Status
a) Describe the organisation's process for identifying and assessing climate-related risks and opportunities	Established – continue and improve
b) Describe the organisation's process for managing climate-related risks	Initiated – develop and implement
c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management	Initiated – develop and implement

Risk Management Approach

AAHK has a structured and robust approach to enterprise risk management, governed by a risk management framework, which encompasses various elements of assessment, review and planning to address risks across the organisation. Risk management is coupled with an internal control framework, which outlines roles and responsibilities associated with the identification, assessment and management of risks and controls (refer Figure 2 below).

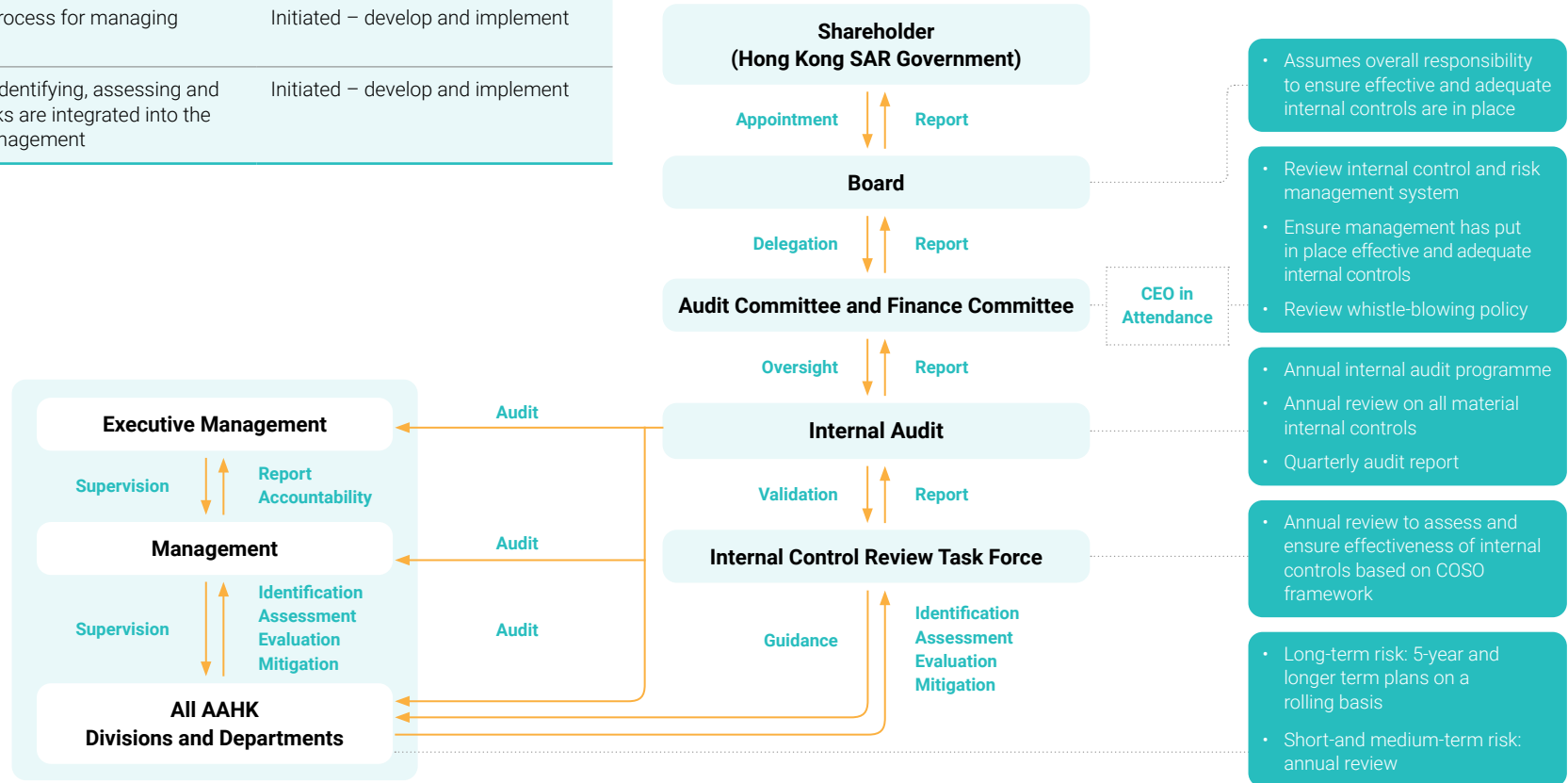


Figure 2 AAHK's internal control framework

Risk management and internal controls are embedded in the operational procedures of functional departments. Through a bottom-up analytical approach, risks are identified and assessed through an operating and supporting function, with risks escalated to the Senior Executive where there is a potential impact on AAHK operations. Part of this risk assessment and review process involves the consideration of sustainability aspects including climate change in the Sustainability Risk Profile. At the Board level, the Audit Committee and Finance Committee is responsible for reviewing AAHK's risk management system and bringing any key issues to the Board's attention, if appropriate. Further information on AAHK's risk management approach and framework is provided within our Annual Report.

Materiality Assessment

As part of our Sustainability Report, we have described the process and findings of our materiality assessment, which identified the most important and relevant sustainability issues to AAHK. We have referred to previous sustainability reports to identify important sustainability issues and determined their materiality on the basis of emerging industry trends, business planning and existing and emerging sustainability reporting requirements. These material issues are outlined within our Sustainability Report.

Climate Resilience Study

The Climate Resilience Study has been an important project to identify and assess our climate-related risks. The adoption of AAHK's Operational Risk Register matrix (within our Business Continuity Manual) as part of this Study allowed climate-related risks to be assessed under the same risk parameters as other operational risks. This supports a smooth integration of climate-related risks into AAHK's overall risk management system.

Following the completion of the Climate Resilience Study, AAHK will seek to embed the identified priority climate-related risks within our Sustainability Risk Profile and include these in the Internal Control Review Exercise process, reporting key risks to the Audit Committee and Finance Committee. In addition, several actions have been undertaken to further support integration of climate-related risks into our risk management system, including:

- Establishment of a Climate Resilience Team, within the Sustainability Department, to oversee the findings of the Climate Resilience Study and other climate-related strategic or detailed engineering studies and manage implementation of actions;
- Regular communication between Climate Resilience Team and General Managers and Executive Directors to provide progress updates on implementation of climate-related actions; and
- Annual reporting to the Board-level Business Development Committee on the progress, monitoring and evaluation of climate-related actions.

Completion of this Study provides a pathway for AAHK to continually improve our approach to enhancing the resilience of HKIA and capitalising on opportunities that may arise from a global shift to a low-carbon economy. We will seek to review the risks and opportunities identified in this Study every five years, or if a review trigger arises.

Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

TCFD Disclosure	Status
a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process	Initiated – develop and implement
b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas emissions, and the related risks	Established – continue and improve
c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets	Initiated – develop and implement

AAHK is committed to reducing emissions through its HKIA Carbon Reduction Programme and annually reports total emissions and electricity consumption for AAHK and airport-wide carbon emissions in its Sustainability Report.

The airport-wide Carbon Reduction Programme enabled HKIA to be the first airport in Asia-Pacific to maintain ACI's ACA Level 3 'Optimisation' in 2013, and we became the first airport in Asia-Pacific to also secure a 3-yearly renewal in 2016. This accreditation requires that AAHK's annual emissions are verified by a third party agency that is recognised by ACA as a competent verifier. This achievement has allowed AAHK to showcase important achievements with regards to carbon management.

HKIA Carbon Reduction Programme

To date, AAHK, together with airport BPs, have made two carbon reduction pledges, through its HKIA Carbon Reduction Programme. AAHK aims to accelerate the rate of carbon reduction at HKIA by working closely with our airport BPs. Given our BPs contribute over 60% of HKIA's carbon footprint, we work closely with the airport community through an airport-wide approach to set targets, implement carbon reduction measures, and drive energy efficiency and GHG emissions reduction.

Between 2010 and 2015, AAHK and over 40 BPs achieved our first carbon pledge and reduced the airport-wide carbon emissions by 25.6% per workload unit (one passenger or 100kg of cargo) from a 2008 baseline. In November 2016, AAHK and 53 BPs renewed our pledge to further reduce the carbon emissions by 10% by 2020 from 2015 levels.

Due to the airport-wide nature of the HKIA carbon reduction target, AAHK has implemented stakeholder engagement activities since 2016 to encourage the BPs to provide full support to the Carbon Reduction Programme, including an HKIA Carbon Award Scheme, Senior Executive Roundtable and technical working group sessions.

Emissions and Energy Reporting

In 2008, we conducted our first carbon audit of all AAHK-owned facilities at the airport. The success of the first carbon audit laid the foundation for AAHK to develop an airport-wide carbon reduction programme with our BPs in 2009.

AAHK currently discloses its Scope 1, Scope 2 and selected Scope 3 emissions, including emissions from BPs participating in the HKIA Carbon Reduction Programme.

As at end 2018, AAHK and its BPs achieved an 8.7% reduction in carbon intensity and were on track to achieve 10% airport-wide reduction in carbon intensity by 2020 compared to the 2015 baseline.

HKIA Net Zero Carbon Pledge

In December 2021, a third carbon pledge was launched to demonstrate HKIA's commitment to long term decarbonisation:

The Airport Authority Hong Kong and its key aviation-related Business Partners commit to achieve Net Zero Carbon by 2050, with a midpoint target of 55% absolute emissions reduction by 2035 from a 2018 baseline.

The new target takes into account various scope 1, 2 and 3 emission reduction opportunities, including accelerating the transition from a diesel to an electric-powered airside vehicle and GSE fleet, increasing adoption of low global warming potential refrigerants, ongoing implementation of energy efficiency initiatives with a focus on piloting of new technologies with BPs and further identification of on-site renewables opportunities.

In line with previous carbon pledges, AAHK will launch a Business Partners Carbon Support Programme which will include key pillars on governance, finance, capacity building and technology and innovation and encourage the airport community to work together to accelerate and achieve decarbonisation.

In 2019, our airport-wide carbon emissions remained steady, while the carbon intensity increased compared with 2018. This was mainly due to reduced workload units resulting from lower passenger traffic and cargo throughput, caused by the social unrest in Hong Kong and an international trade dispute in 2019. It is noted that 2019 and 2020 were exceptional years for HKIA as a result of social unrest and COVID-19 respectively. The carbon emissions over the past two years do not reflect the performance of the airport during normal operation.

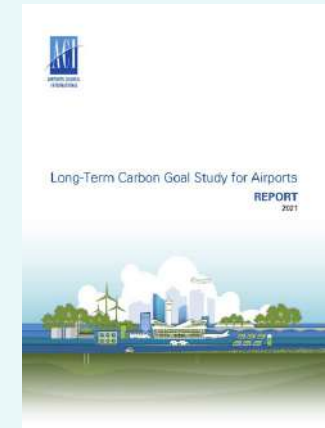
Electricity consumption is the major contributor, accounting for over 90% of AAHK's carbon emissions. In 2019/20, our electricity consumption remained steady at 299,643 MWh while the electricity intensity was 4.92 kWh per passenger, which was higher than in 2018/19 due to reduced passenger volume.

Airports Council International Long Term Carbon Goal⁵

Committed to supporting the advancement of the airports sector, and to continue demonstrating leadership in carbon management, AAHK played a key role in sponsoring the ACI Long Term Carbon Goal Study and contributing as a member on the study taskforce.

ACI's long term carbon goal relates to the carbon emissions under the direct control of airport operators and will be a crucial component of the aviation industry's contribution towards this global effort.

AAHK is also the nominated ACI Regional Environmental Committee's representative for the Asia Pacific Region for the Airport Carbon Accreditation Taskforce.



5. [Net zero by 2050: ACI sets global long term carbon goal for airports – ACI World](#)

Existing Metrics to Assess Risks and Opportunities

Table 2 provides an overview of AAHK's existing metrics and targets which are publicly reported.

Table 2 Summary of HKIA airport-wide metrics

Metric	2015	2016	2017	2018	2019	2020
Carbon emissions (tonnes of CO ₂ e)	425,522	436,577	436,732	435,661	436,938	340,119
Workload Unit (WLU) ⁶	112,288	115,723	122,236	125,882	119,633	53,516
Carbon intensity (kgCO ₂ e/WLU)	3.79	3.77	3.57	3.46	3.65	6.36
Electricity consumption (kWh ('000))	679,793	704,960	695,635	686,988	687,753	539,024
Electricity intensity (kWh per passenger)	9.93	10.00	9.55	9.20	9.61	61.00

Remarks:

- The methodologies and emission factors applied for the quantification of GHG emissions and removals were in accordance with the Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purposes) in Hong Kong, 2010 Edition issued by EMSD and EPD.
- The operational boundary covers scope 1, scope 2 and selected scope 3 emissions of AAHK.

6. One workload unit is equal to one passenger or 100kg of cargo

Key initiatives

In order to better manage and reduce our carbon emissions, we have:

- Completed a HKIA Long Term Carbon Target Study
- In relation to energy reduction (list not exhaustive):
 - Fine-tuned and optimised air-conditioning systems, baggage conveyor belts and sea water pumps to reduce energy consumption
 - Upgraded lighting, air-conditioning and travellers with more energy efficient models to reduce electricity consumption
 - Tested various films to improve thermal insulation of façade glazing
 - Installed solar panels to generate on-site renewable energy
 - Implemented the Airside Vehicle Electrification Programme (Phase 2) which requires the replacement of all airside private vehicles with a gross weight of less than 3 tonnes with electric models by the end of 2022
 - Implemented the GSE Pooling Scheme to minimise the overall GSE mobilisation and traffic on the apron, thus reducing carbon emissions and saving energy
 - Implemented a Green Airport Design and Construction Strategy which includes a focus on embedding carbon reduction initiatives early in the project lifecycle
- Under EV100
 - AAHK will increase the number of EVs in HKIA from the existing 720 to more than 3,000 by 2030
 - AAHK will provide over 1,320 charging points by 2030 to support airport operations.

Commitments

To continue our efforts to respond to climate-related risk, we commit to undertaking the following actions over the next 12 months, in alignment with our TCFD roadmap and implementation plan:

- Adopt the findings of the Climate Resilience Study and Long Term Carbon Target Study
- Implement the Carbon Management Plan to support the HKIA 2050 Net Zero Carbon Pledge
- Update environmental-related policies to describe the commitment and objectives to address climate-related risks and opportunities across HKIA
- Update our governance processes and responsibilities to further embed climate resilience and carbon management
- Embed the findings of the Climate Resilience Study and Long Term Carbon Target Study into development strategies for new and future works as part of AAHK's Green Airport Design and Construction Strategy
- Incorporate the findings of the Climate Resilience Study's physical risk assessment into asset-specific operations and maintenance plans
- Continue the implementation of energy reduction initiatives and pilot innovative new technologies in collaboration with the airport community to accelerate carbon reduction
- Engage with key stakeholders to improve strategic resilience and our understanding of the latest climate science and its relevance to Hong Kong and AAHK
- Contribute to thought leadership on carbon management and climate resilience with our BPs, ACI and other relevant bodies
- Develop metrics to follow the implementation progress of proposed adaptation actions from the Climate Resilience Study
- Develop reporting dashboards to monitor HKIA's performance against established targets.