## Introduction
(GRI 2-1, 2-2, 2-3)

ABOUT THIS REPORT

Capital A Berhad (Capital A or the Group)'s Sustainability Statement 2022 marks the 10th year of our sustainability journey and provides a retrospective view of our achievements and the challenges we face.

This report provides an overview of our economic, environmental and social (EES) approach, performance and achievements to create long-term sustainable value for our stakeholders. We demonstrate our ability to diligently manage pertinent sustainability risks and opportunities that impact our business operations and stakeholders.

This year, we are reinforcing our foundations and commitments through the introduction of our sustainability strategy, the Sustainability Redbook, which outlines the Group's sustainability objectives and direction in the short, medium, and long term. We also expanded our reporting scope to include more lines of business (LOBs) to better reflect the Group's performance. To strengthen our commitment in climate-related disclosures, we are officially a supporter of the Task Force on Climate-related Financial Disclosures (TCFD). Overall, the Report provides detailed information on our progress and achievements in our journey to create long-term sustainable value for all.

Reporting Framework & Guidelines

This Report was developed based on sustainability guidelines and standards including Bursa Malaysia Securities Berhad (Bursa Malaysia)'s Main Market Listing Requirements on Sustainability Statements in Annual Reports with guidance from its Sustainability Reporting Guide (3rd Edition). We have also prepared this report with reference to the Global Reporting Initiative (GRI) Standards.
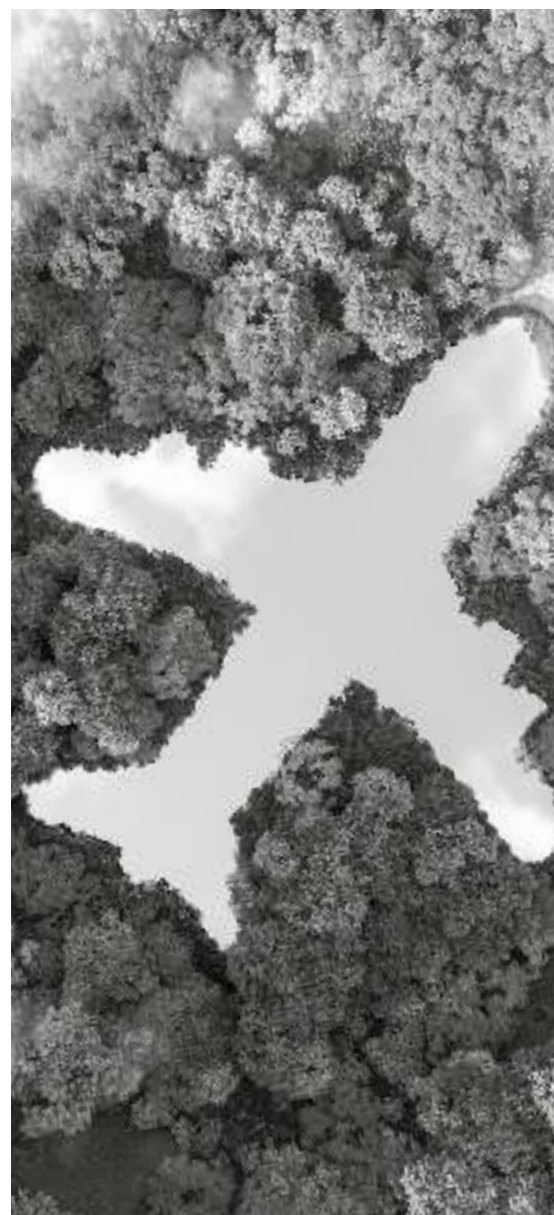
Other frameworks and guidelines taken into consideration include:

• FTSE4Good Bursa Malaysia (F4GBM) Index
• Dow Jones Sustainability Index (DJSI)
• Task Force on Climate-related Financial Disclosures (TCFD)
• United Nations' Sustainable Development Goals (UN SDGs)

Reporting Scope and Boundaries

This Report covers the sustainability performance of Capital A and its subsidiary companies for the reporting period of 1 January 2022 to 31 December 2022, unless stated otherwise. Throughout the report, the terms 'we' or 'the Group' refer to Capital A while each subsidiary is referred to by its own name, and the airlines collectively are referred to as 'AirAsia'. Where relevant and available, this Report provides comparative historical data.

Disclosures for airlines only include AirAsia Malaysia (MAA), AirAsia Indonesia (IAA) and AirAsia Philippines (PAA). AirAsia Thailand (TAA) is not included in this Report for consistency with the financial reporting scope. For more information on TAA's sustainability performance, TAA has a standalone sustainability report that readers can find on its website: www.aavplc.com/en/document/sustainability-reports

All monetary values in this report are expressed in Ringgit Malaysia (RM), consistent with the Malaysian Financial Reporting Standards.

Forward-Looking Statements

This report contains forward-looking statements which reflect the Group's expectation of future value creation as well as financial and non-financial performance. Such forward-looking statements are based on current assumptions and circumstances which could change, hence necessarily involve uncertainties. Unforeseen events and risks may arise beyond the Group's control, leading to actual results differing from those stated in the forward-looking statements.

Assurance

To ensure the accuracy and integrity of our disclosures, this Report has been reviewed by Capital A's Sustainability Working Group (SWG), and endorsed by the Board of Directors. The Board has, further, validated the Report's relevance to the Group's business and performance. Moving forward, we aim to obtain internal assurance from our Group Internal Audit department to
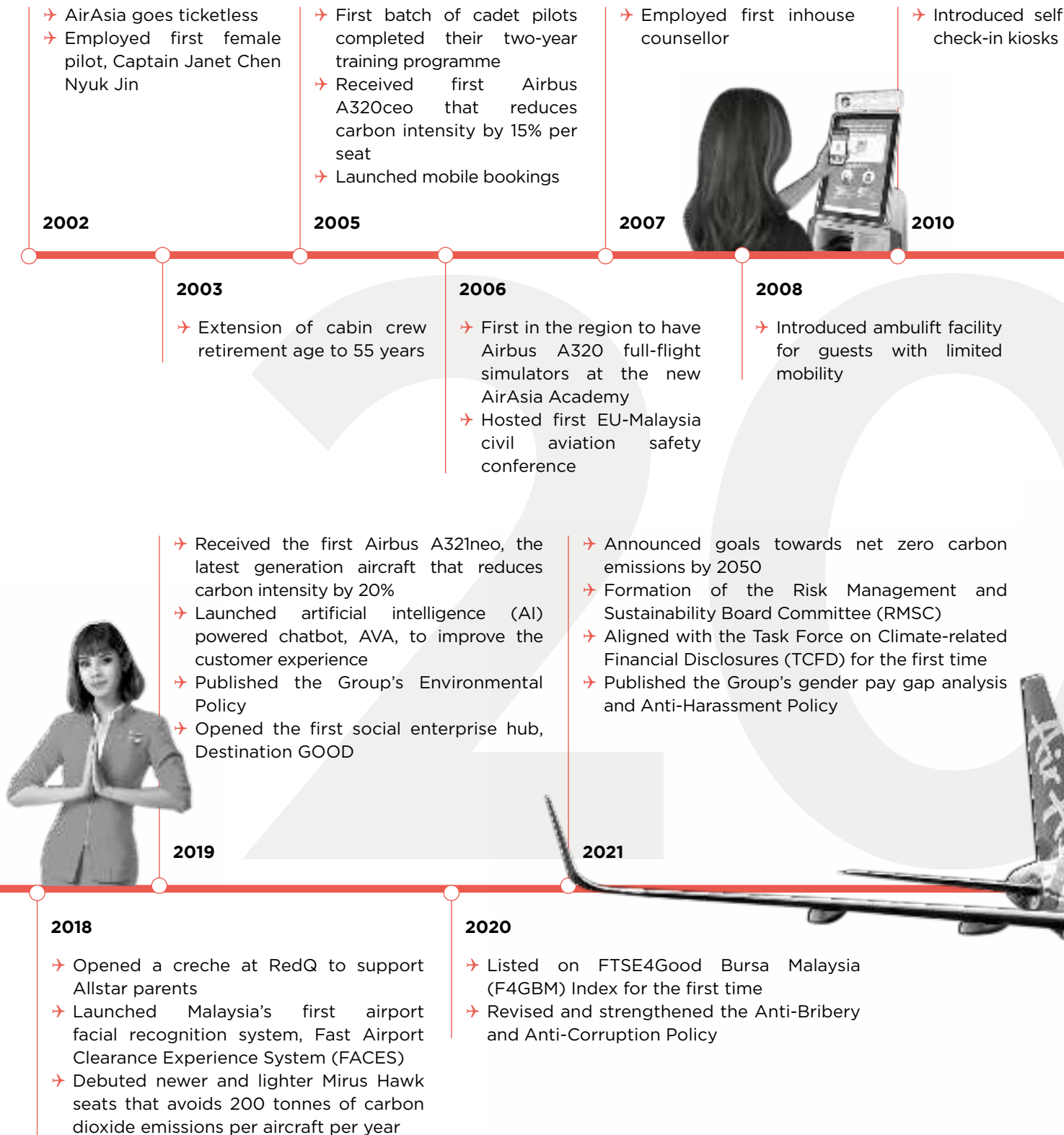
further strengthen the credibility of the Sustainability Statement.

Contact Us

In order to continuously improve our reporting and sustainability efforts, we welcome all feedback, ideas and comments from our stakeholders. Please direct enquiries, feedback or comments on Capital A's Sustainability Statement 2022 via the following email: sustainability@airasia.com.

Introduction (cont'd)

Our Sustainability Journey

2002
- ✈ AirAsia goes ticketless
- ✈ Employed first female pilot, Captain Janet Chen Nyuk Jin

2003
- ✈ Extension of cabin crew retirement age to 55 years

2005
- ✈ First batch of cadet pilots completed their two-year training programme
- ✈ Received first Airbus A320ceo that reduces carbon intensity by 15% per seat
- ✈ Launched mobile bookings

2006
- ✈ First in the region to have Airbus A320 full-flight simulators at the new AirAsia Academy
- ✈ Hosted first EU-Malaysia civil aviation safety conference

2007
- ✈ Employed first inhouse counsellor

2008
- ✈ Introduced ambulift facility for guests with limited mobility

2010
- ✈ Introduced self check-in kiosks

2018
- ✈ Opened a creche at RedQ to support Allstar parents
- ✈ Launched Malaysia's first airport facial recognition system, Fast Airport Clearance Experience System (FACES)
- ✈ Debuted newer and lighter Mirus Hawk seats that avoids 200 tonnes of carbon dioxide emissions per aircraft per year

2019
- ✈ Received the first Airbus A321neo, the latest generation aircraft that reduces carbon intensity by 20%
- ✈ Launched artificial intelligence (AI) powered chatbot, AVA, to improve the customer experience
- ✈ Published the Group's Environmental Policy
- ✈ Opened the first social enterprise hub, Destination GOOD

2020
- ✈ Listed on FTSE4Good Bursa Malaysia (F4GBM) Index for the first time
- ✈ Revised and strengthened the Anti-Bribery and Anti-Corruption Policy

2021
- ✈ Announced goals towards net zero carbon emissions by 2050
- ✈ Formation of the Risk Management and Sustainability Board Committee (RMSC)
- ✈ Aligned with the Task Force on Climate-related Financial Disclosures (TCFD) for the first time
- ✈ Published the Group's gender pay gap analysis and Anti-Harassment Policy

- ✈ Launched Malaysia's first baggage self-tagging service
- ✈ First to adopt the Required Navigation Performance Authorisation Required (RNP-AR) procedure to cut short landing approaches

2013

- ✈ e-boarding pass available for all flights

2015

- ✈ Launched anti-human trafficking training, #KnowtheSigns
- ✈ Introduced electronic flight bags to cut paper weight onboard, thus saving 1.3kg of fuel and 4.2kg of CO_2 per flight

2017

2012

- ✈ AirAsia Foundation established to contribute to Asean community-building
- ✈ First airline in the world to operate the Airbus A320 with Sharklet wingtips that boost lift and reduce emissions

2014

- ✈ Raised USD2.17 million through 'To Philippines with Love' campaign to aid reconstruction efforts in Typhoon Haiyan affected areas
- ✈ Introduced INTERPOL's I-Checkit system to enhance international travel security
- ✈ Launched onboard Wi-Fi service to increase connectivity

2016

- ✈ First airline in Asean to fly the Airbus A320neo aircraft, saving up to 666 litres of fuel per flight

ONWARDS

#Never Stop

2022

- ✈ Appointed first Chief Sustainability Officer
- ✈ Became an official TCFD supporter
- ✈ Published the Group's Sustainability Policy and Sustainability Redbook
- ✈ Scored above threshold in first submission to the Bloomberg Gender Equality Index
- ✈ Introduced Digital Trip Files to reduce paper printing and manual workflow on the ground

Introduction (cont'd)

Looking to the Future with Our Sustainability Redbook

(GRI 2-22)

The year 2022 marked a cornerstone for Capital A where we faced the challenges of resuming operations whilst advancing our efforts towards sustainability. Despite various obstacles, we remained resilient and adaptable moving forward as the world started to open up.

Through the years, we have progressively laid the foundations to embed sustainability in our business by implementing initiatives to address our material matters, strengthening our information security and cultivating sustainability knowledge among our Allstars. This year we broadened and deepened our agenda by incorporating sustainability practices into our strategic priorities.

We developed the Sustainability Redbook, a short and medium-term plan, which sets out our economic, environmental and social objectives and goals until 2035. This will serve as a guide towards delivering positive value for Capital A, the environment, our people and communities in which we operate. We champion the idea of doing more with less to drive the message of positive sustainable action using the resources we have.

Our Vision

Be the brand for sustainable business setting industry standards to strengthen our competitive advantage

Our Mission

Think (and be) sustainable by integrating sustainability into our corporate DNA

Our sustainability roadmap is underpinned by six strategic drivers:

| Reduce carbon footprint | Create an enabling and inclusive workplace | Strive for best practice | Minimise waste | Invest in our communities | Innovate to raise the bar |

The Sustainability Redbook was designed to complement the Group's business strategy, The Redbook, outlining a roadmap to achieve our sustainability objectives. We have set internal time-bound targets for key environmental and social material areas in order to measure and track our progress towards our goals. As the sustainability landscape is dynamic, the Sustainability Redbook is a living document that will be continually updated as we learn more and gain better understanding on how we can better to align our business objectives with the global sustainability agenda.

In the immediate term (until 2026), we are focusing on four environmental and social areas for better impact:

Our Ambitions For 2026

Environmental

Net Zero Emissions

- Cap emissions at 85% of 2019 levels
- Investment in Sustainable Aviation Fuel for utilisation in the near future
- Utilise bio-fuels to operate ground vehicles
- Explore and purchase suitable carbon offsets for residual carbon emissions
- 15% of power consumption mix to be renewable energy
- All new buildings to be Green certified and utilise at least 30% renewable energy
- Achieve full paperless operations
- Convert all on-site servers to cloud-based servers

Circular Economy

- Reduce waste to landfill by 10% per annum
- Zero single-use plastics
- Cap food waste at 15%
- 30% of total procurement to be from ESG-compliant suppliers
- 10% of materials to be biodegradable or recycled

Social

People and Talent

- Achieve a minimum of 30% women representation across all employee levels including the Board
- Support women in STEM by achieving a minimum of 10% women pilots and engineers, and 30% women in tech
- Invest 2% of total manpower budget into training & development
- Achieve 1.5 human capital return on investment ratio

Communities

- Positively impact 100 million people
- Generate RM12 million revenue per annum from social and Micro, Small & Medium Enterprises (MSMEs)

Our Sustainability Policy was approved by the Risk Management and Sustainability Board Committee and AirAsia Aviation Group Limited Sustainability Committee in the first quarter of 2023, further strengthening our commitment towards advancing our sustainability agenda. Moving forward, we will continue to internalise and work towards our Sustainability Redbook targets whilst increasing awareness of sustainability across our operations to Win As One.

For more information on our Sustainability Policy, please visit https://www.capitala.com/misc/Capital_A_Sustainability_Policy_2023.pdf

Introduction (cont'd)

Sustainability Governance

(GRI 2-9, 2-10, 2-11, 2-12, 2-13, 2-14)

Capital A Board of Directors

Risk Management and Sustainability Committee

Chief Sustainability Officer

Sustainability Working Group

Group Sustainability Department

Heads of Department

Chiefs of LOBs

Integrating sustainability at every level of our business is important for the governance and accountability of our sustainability commitments. Starting from the top, Capital A's Board of Directors has overall responsibility for the Group's sustainability strategy and performance for long-term value creation. The Board also oversees working groups and teams that are responsible for specific sustainability areas.

Formalised in December 2021, the Risk Management and Sustainability Committee (RMSC) provides Board-level oversight and assesses the Group's strategic direction, policies, principles and practices on sustainability and risk management matters. The Terms of Reference for the RMSC, finalised and approved in February 2022, state that the committee is to meet every quarter to review the Group's sustainability strategies, sustainability report, and progress on sustainability-related initiatives.

In the first quarter of the year, we appointed the Group's first Chief Sustainability Officer (CSO) to head our Sustainability Department and spearhead Capital A's sustainability efforts through execution of the Group's sustainability strategies and initiatives. The department's tasks include reporting, identifying key sustainability risks and opportunities, assessment of material issues, stakeholder engagement, and implementation of sustainability initiatives. The department also provides regular updates on sustainability progress to the RMSC and Board of Directors and supports the RMSC in making informed decisions that incorporate sustainability perspectives into business decisions.

The CSO also chairs the Sustainability Working Group (SWG), a cross-functional committee comprising heads of department (HoDs) and sustainability representatives from all LOBs. At quarterly SWG meetings, the SWG enables the Sustainability team to update functional heads on the latest sustainability developments including assessment outcomes, new reporting requirements and relevant best practices. The SWG also allows all HoDs and sustainability representatives to raise for discussion any planned new initiatives and outcomes of ongoing initiatives.

During the reporting year, the SWG and the RMSC convened to discuss the following matters:

Sustainability strategy, targets and initiatives	Sustainability performance and updates	Participation and results from sustainability ratings	Finalisation of the Group's sustainability policy and Sustainability Redbook targets

Stakeholder Engagement

(GRI 2-29)

Our stakeholders are important to us as they impact our business operations and activities. We identify and understand the needs and expectations of our stakeholders in order to create long-term value for all. We do this through active and regular communication across multiple platforms.

Stakeholder Group	Engagement Channels	Areas of Interest	How We Respond
Board of Directors	• Board meetings • Annual General Meetings • Corporate events • Extraordinary General Meetings	• Financial performance • Corporate governance (CG) & strategies • Business development & partnerships • Human capital management • Environmental practices	• Focus on enhancing our branding and expanding lines of business • Sustainability practices
Employees (Allstars)	• Social media • Employee appraisals • Community engagement • Online surveys • Townhalls • Quarterly Leadership forums • Cultural, sports, well-being & appreciation events • Open office layout • Google Spaces channel to receive company updates and address any enquiries	• Diversity, inclusion & equal opportunity • Corporate Governance (CG) practices • Training & career development • Work-life balance • Financial performance • Fair remuneration & compensation • Security, safety & welfare • Mental health support system	• Foster inclusivity and positive relationships through employee engagement programmes • Provide frequent updates on the Group's performance and changes in policies and procedures • Provide various training and skills enhancement opportunities • Ensure fair compensation • Provide safe and healthy working environment • Daycare centre/creche/lactation room
Business Partners	• Regular meetings • Financial institutions & aircraft investor credit roadshows • Workshops & seminars • Global aviation finance conferences • Technical support based in RedQ • Commercial support with GE based in KL & Airbus based in Singapore	• Agreeable contracts and terms • Service delivery and cost • Risk management • Regulatory compliance	• Strengthen partnerships with agreeable terms and contracts
Customers (Guests)	• Continuous customer satisfaction surveys • Online submissions • Customer support live chat channels • Social media channels • Messenger channels • AirAsia sales offices, travel & service centres	• Customer experience • Process efficiency • Competitive pricing & experience throughout physical/ digital journey • Data privacy & security • Safety & well-being • Loyalty rewards	• Provide fast and prompt attention to customer needs • Continue to increase customer satisfaction through process efficiency • Protect customers' data as well as their health and safety

Introduction (cont'd)

Stakeholder Engagement

Stakeholder Group	Engagement Channels	Areas of Interest	How We Respond
Investors	• Investor meetings & conference calls • Annual General Meetings & Extraordinary General Meetings • Investor Relations website • Investor briefings by Senior Management • Annual Reports	• Financial performance • CG practices • Long-term business strategy • Brand management • Operational performance • Occupational health & safety • Customer relationship management • Innovative initiatives • Environmental management	• Actively communicate with investors • Provide timely updates of business performance & strategies • Focus on enhancing our branding and expanding lines of business • Ensure safe & healthy working environment • Sustainability practices
Market Analysts	• Analyst briefings • Analyst meetings & conference calls • Media interviews & releases • Investor Relations website • Annual Reports	• Financial performance • CG practices • Long-term business strategy • Brand management • Operational performance • Guest experience • Environmental management • Data privacy & security	• Continued engagement with analysts • Timely updates of business performance & strategies • Focus on enhancing our branding and expanding lines of business • Sustainability practices
Regulators/ Governmental Bodies	• Regular dialogue through face-to-face meetings & official correspondence • Parliamentary sessions • Formal meetings with government officials initiated by Capital A • Tours and familiarisation visits to Capital A premises	• CG practices • Policy & regulatory compliance • Risk & crisis management • Data privacy & security • Environmental management	• Engage closely with regulators and governmental bodies • Announce or report relevant information in a timely manner • Maintain standards and certifications
Social Enterprises	• Corporate community programmes • Funding of social enterprises through AirAsia Foundation • Regular dialogue	• Ethics & integrity • Innovation • Job creation • Economic development	• Create support system for social enterprises • Actively communicate with social entrepreneurs • Increase employability and job creation
Suppliers	• Regular dialogue and reviews • One-to-one meetings	• Agreeable terms and contracts • Service efficiency, value, delivery & cost • Health & safety	• Ensure consistent communication with suppliers on contracts and supplier code of conduct • Compliance with required policies • Provide safe and healthy workplace

Stakeholder Group	Engagement Channels	Areas of Interest	How We Respond
Local Communities	• Community development programmes • Corporate social responsibility initiatives • Partnerships and employee volunteerism • Websites and social media platforms	• Community engagement • Rural development & empowerment • Environmental impact	• Undertake empowerment programmes, volunteerism and donations • Provide humanitarian assistance and post-disaster relief

Membership of Associations (GRI 2-28)

Malaysia

Capital A has been a member of the CEO Action Network (CAN) since 2020. This coalition is a peer-to-peer informal network of CEOs that focuses on sustainability advocacy, capacity building, action and performance. Through this working group, corporate leaders across various sectors are able to forge partnerships and share their knowledge and best ESG practices.

In October 2022, our Chief Sustainability Officer was appointed by the Civil Aviation Authority of Malaysia (CAAM) to lead the national taskforce on Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). We also support the Malaysian Ministry of International Trade and Industry (MITI) in its efforts to develop a domestic biofuels industry to power a future of sustainable aviation. Two meetings of the Task Force for Exploration of Sustainable Aviation Energy Sources in Malaysia were organised and chaired by MITI in 2022.

ADE is a member of the Aviation Suppliers Association (ASA), a global trade association of suppliers that supports aviation through critical logistics programmes, purchasing efforts, and distribution of aircraft parts worldwide.

Indonesia

We engage closely with the Directorate General of Civil Aviation of Indonesia (DGCA) and Indonesia Air Carriers Association (INACA) on aviation related initiatives and activities. In October 2022, the Head of Government Relations of AirAsia Indonesia (IAA) was appointed as an Expert for the INACA. INACA focuses mainly on creating a competitive business environment for the aviation industry in Indonesia including advocacy on aviation fuel pricing, streamlining spare parts importation and strengthening air connectivity to support tourism recovery in Indonesia.

In April 2021, IAA's Head of Government Relations was elected as President of the ASEAN Tourism Association (ASEANTA) for the period 2021-2023. ASEANTA is a non-profit tourism association comprising public and private tourism sector organisations from Asean countries. Initiatives during his tenure cover interoperability of health applications and vaccine certificates within Asean to support safe travel, advocacy on borders reopening, and establishing a digital platform to support ASEANTA's activities.

Philippines

We engage closely with the Civil Aviation Authority of the Philippines on aviation related matters. We are a member of the Philippine Chamber of Commerce and Industry, Cebu Chamber of Commerce and Industry and Davao City Chamber of Commerce and Industry. Additionally, we cooperate in tourism promotions with the business chambers, hotel and restaurant associations and travel agency associations of all the domestic destinations that we fly to.

Introduction (cont'd)

Materiality

(GRI 3-1, 3-2)

Based on benchmarking of global and industry trends as well as assessment of Capital A's business objectives, we deemed that the material matters identified in 2021 were still relevant to our business in 2022. Our materiality assessment in 2021 was conducted through a comprehensive materiality survey which included engagement with 472 internal and external stakeholders in order to better understand what they expect from us. We identified nine material matters through the process below:

01
Identify

An internal review of our 10 material matters from FY2020 was carried out. This was followed by research on current and emerging issues, as well as an analysis of the potential risks and opportunities to our businesses. A total of nine material sustainability matters were identified.

02
Prioritise

An online materiality assessment survey was distributed to internal and external stakeholders, inviting them to rank our nine identified material matters based on the level of importance to them as well as our performance thus far. Results of the assessment were plotted on a materiality matrix graded from medium to high importance.

03
Validate

The final list of material matters, stakeholder feedback and materiality matrix were presented to the Board of Directors for review and validation.

Materiality Matrix
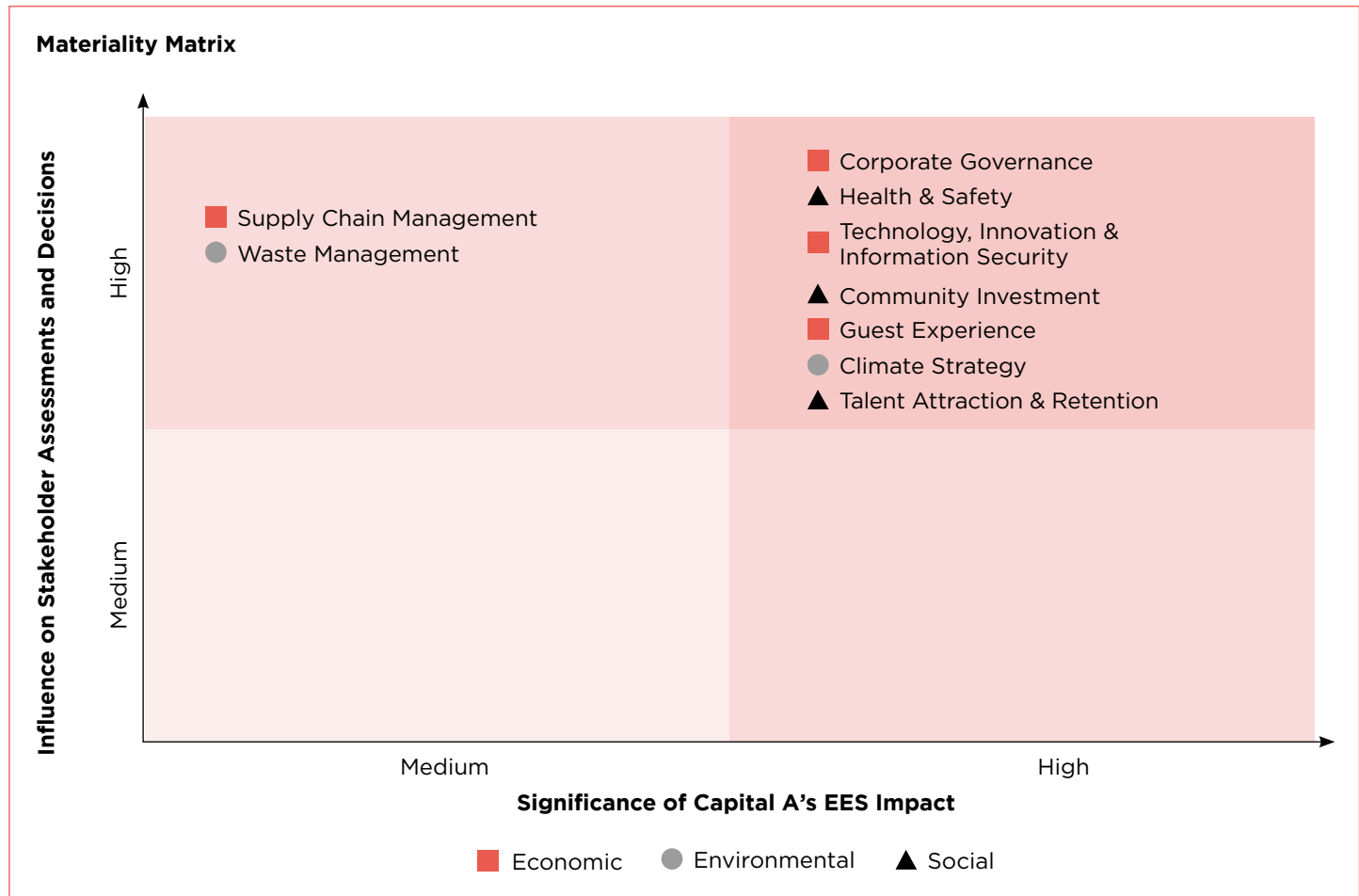
We will be refreshing our materiality matters in 2023 as we recognise the dynamic nature of stakeholders' and the Group's concerns. Through this process, we strive to gain feedback from our stakeholders whilst advancing the Group's agenda to create long-term sustainable value.

Commitment to the UN Sustainable Development Goals

OUR CONTRIBUTIONS TO THE UN SUSTAINABLE DEVELOPMENT GOALS

Since the launch of the UN SDGs in 2015, we have recognised its importance and realised the global agenda through the years. This year, we are expanding our focus from six SDGs previously to include SDGs 16 and 17 as well. In the table below, we align the eight SDGs to our initiatives in 2022.

SDG	SDG Targets		Our Progress in 2022
5 GENDER EQUALITY	5.2	Eliminate all forms of violence against women & girls, including trafficking & other types of exploitation	• Participated in the Bloomberg Gender Equality Index
	5.5	Women's full and effective participation & equal opportunities for leadership at all levels	• 17% of our Board of Directors are women • Enhanced our gender pay gap analysis • Published the Terms of Reference for the Diversity, Equality and Inclusion management committee • 313 B40 women have graduated from the airasia academy #RatuTech campaign on technical reskilling
8 DECENT WORK AND ECONOMIC GROWTH	8.2	Achieve higher levels of economic productivity through diversification, technological upgrading & innovation	• Provided employment for 11,662 Allstars • Created new jobs for 3,409 new Allstars • More than RM113.9 million invested in training and development
	8.3	Encourage the growth of micro-, small- and medium-sized enterprises	• 1,067 Allstars participated in #KnowTheSigns Human Trafficking awareness course
	8.4	Improve global resource efficiency in consumption & production, and endeavour to decouple economic growth from environmental degradation	• First in Asia to provide full-time employment to gig riders for airasia ride
	8.5	Achieve full & productive employment and decent work for all	
	8.7	Take effective measures to eradicate forced labour, end modern slavery & human trafficking	
	8.8	Protect labour rights & promote safe and secure working environments for all	
	8.9	Devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture & products	
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	9.1	Develop quality, reliable, sustainable & resilient infrastructure to support economic development and human well-being, with a focus on affordable & equitable access for all	• FACES integrated with Malaysia Airports Holdings Berhad's EZPaz system at klia2 for AirAsia guests to enjoy contactless end-to-end journey
	9.3	Increase the access of small-scale industrial & other enterprises to financial services, including their integration into value chains & markets	• More than RM30,700 distributed to support the growth and expansion of social enterprises in Asean through AirAsia Foundation
	9.4	Upgrade infrastructure & retrofit to make them sustainable, with increased resource-use efficiency and greater adoption of clean & environmentally sound technologies	
	9.5	Enhance scientific research, upgrade the technological capabilities of industrial sectors by encouraging innovation	

Introduction (cont'd)

Commitment to the UN Sustainable Development Goals

SDG	SDG Targets	Our Progress in 2022
11 SUSTAINABLE CITIES AND COMMUNITIES	11.2 Provide access to safe, affordable, accessible & sustainable transport systems to all 11.4 Strengthen efforts to protect & safeguard the world's cultural and natural heritage 11.5 Reduce the number of deaths & the number of people affected, and decrease the direct economic losses relative to global gross domestic product caused by natural disasters	• More than RM518,169 distributed to rebuild for climate resilience • Safety Management System in place ensures operational risks are proactively managed with relevant procedures to prevent serious incidents • #AllstarsDoGood programmes
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	12.2 Achieve sustainable management & efficient use of natural resources 12.3 Halve per capita global food waste at the retail & consumer levels, and reduce food losses along production & supply chains 12.5 Reduce waste generation through prevention, reduction, recycling & reuse 12.6 Encourage companies to adopt sustainable practices & integrate sustainability information into their reporting cycle 12.7 Promote public procurement practices that are sustainable, in accordance with national policies & priorities	• 4,160kg of waste from offices recycled • Repurposed 1,395 old life jackets into everyday accessories with Soggy No-More products • Recycled 2,110kg of old cabin crew uniforms and merchandise into processed engineered fuel (PEF) • Invested 48% of expenditure on local suppliers • Research and piloting of environmentally-friendly food packaging for Santan's food catering
13 CLIMATE ACTION	13.2 Integrate climate change measures into strategies & planning 13.3 Improve education & awareness-raising on climate change mitigation, adaptation, impact reduction & early warning	• Actively engaged with relevant partners for sustainable aviation fuel and carbon offsetting options • Sustainable fleet management by ordering the latest aircraft type Airbus A321neo and actively engaging with vendors to develop zero-emissions aircraft • Monitoring, Reporting and Verification (MRV) of carbon emissions • All AOCs participating in CORSIA • Published net zero by 2050 strategy • Officially signed up as a TCFD supporter • Started tracking Scope 3 emissions • Disclosed Scopes 1, 2 and 3 emissions
16 PEACE, JUSTICE AND STRONG INSTITUTIONS	16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children 16.5 Substantially reduce corruption and bribery in all forms 16.6 Develop effective, accountable and transparent institutions at all levels 16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels 16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance 16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements	• Established Board oversight of sustainability through Risk Management and Sustainability Committee (RMSC) • 100% employees acknowledged the Anti-Bribery and Anti-Corruption Policy with zero cases of non-compliance • Zero tolerance for child and forced labour

SDG	SDG Targets	Our Progress in 2022
17 PARTNERSHIPS FOR THE GOALS	17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilise and share knowledge, expertise, technology and financial resources, to support the achievement of SDGs in all countries, in particular developing countries 17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships	• More than 23,200 suppliers and vendor partners across the globe • Partnership with MITI on SAF development • Collaboration with CAAM on CORSIA taskforce

Economic

Corporate Governance

(GRI 3-3)

Maintaining high standards of corporate governance and ethical conduct at all levels at Capital A is crucial for our business resilience and growth. We conduct our business with integrity underpinned by strong leadership, robust risk management practices and internal controls. Responsibility, accountability and transparency form the cornerstone of our operations, building our stakeholders' trust and confidence in our ability to create long-term value.

2022 Performance Overview

100%
of **new joiners** completed **ABAC training**

Zero cases
of **bribery** and **corruption**

4,437
Allstars participated in the **anti-harassment course**

Our Management Approach
- Code of Conduct and Ethics
- Anti-Bribery and Anti-Corruption Policy
- Whistleblowing Policy
- Conflict of Interest Policy
- Disciplinary Policy
- Remuneration Policy
- Board Diversity Policy
- Enterprise Risk Management Policy
- ISO 31000:2018 - Risk management

Supporting the UN SDGs

8 DECENT WORK AND ECONOMIC GROWTH

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

ETHICS AND INTEGRITY (GRI 2-23, 2-24, 2-27, 205-2, 205-3)

At Capital A, we work diligently to conduct our business at the highest standards of ethics and integrity with comprehensive internal controls and robust risk management. We are guided by the following codes and policies:

Code of Conduct and Ethics
Allstars are expected to uphold our reputation by maintaining integrity in their dealings with all stakeholders, guided by our Code of Conduct and Ethics (the Code). The Code addresses key ethical principles including bribery and corruption, confidentiality of information, conflicts of interest, money laundering/insider trading, whistleblowing and the preservation of safety, health and the environment.

2022 Performance
100% of new joiners completed live training on the Code as part of their onboarding. They were also required to acknowledge that they accept and will uphold its standards.

We are working to create e-learning modules on the Code and our Disciplinary Policy in 2023 to be incorporated as part of the onboarding programme.

Anti-Bribery and Anti-Corruption Policy
Capital A conducts our business responsibly with zero tolerance for bribery and corruption, as clearly articulated in our Anti-Bribery and Anti-Corruption (ABAC) Policy. The policy complies with Section 17A of the Malaysian Anti-Corruption Commission (MACC) Act 2009, which introduced corporate liability, as well as other similar laws and regulations in the countries where we operate.

ABAC is introduced to all new Allstars during their onboarding, with live sessions conducted by PAC and our Regional Fraud Investigation Team. New recruits are also required to complete their ABAC online training on the Group's task management platform. Additionally, new cabin crew receive a two-hour 'Do it Right' training, which includes an ABAC component. The policy is available on our intranet, RedDocs, for easy reference at any time.

2022 Performance
100% of new joiners were trained on and acknowledged the ABAC Policy as part of their onboarding.

Zero cases of anti-bribery and corruption

Grievance Mechanisms (GRI 2-16, 2-25, 2-26)

We have in place several channels for internal and external stakeholders to raise any concerns they may have relating to misconduct or improprieties.

AskPAC

1

Allstars are encouraged to report any incident that does not adhere to the principles of the Code through our AI chatbot in the askPAC system. These concerns are picked up by the employee relations team which then assigns a personnel to investigate and resolve the issues raised. All concerns raised are treated with utmost confidentiality. In 2022, we received a total of 190 reports related to harassment, fraud, misappropriation, and abuse of company benefits. Each case was thoroughly investigated as part of the due diligence process with escalations undertaken where necessary. Cases are resolved with either a warning, debriefing note or dismissal. We constantly strive to improve our internal processes and emphasise our zero tolerance for improprieties.

Case received
Case reported through the grievance channels.

Assessment of case severity
If the case is deemed to be of minor severity by the superior, an inquiry will be conducted followed by appropriate disciplinary action. If a case is deemed of major severity, an investigation will be conducted.

Investigation
Investigations are led by the Head of Department, People and Culture department, and investigator. If the case involves any form of misconduct, a Notice To Explain (NTE) will be issued to the employee concerned.

Resolution
Once an NTE is issued, the employee concerned is subject to disciplinary action. The employee can appeal his or her NTE where it will be reviewed based on the severity of the offence. Once disciplinary action is issued, the case will be closed.

Economic (cont'd)

Corporate Governance

Whistleblowing **2**

We promote secure channels for internal and external stakeholders to raise concerns about unethical, illegal or inappropriate business conduct. As per our Whistleblowing Policy, the identity of those making reports is kept confidential or strictly on a need-to-know basis to protect the whistleblower from any possible reprisal or negative reaction from persons implicated.

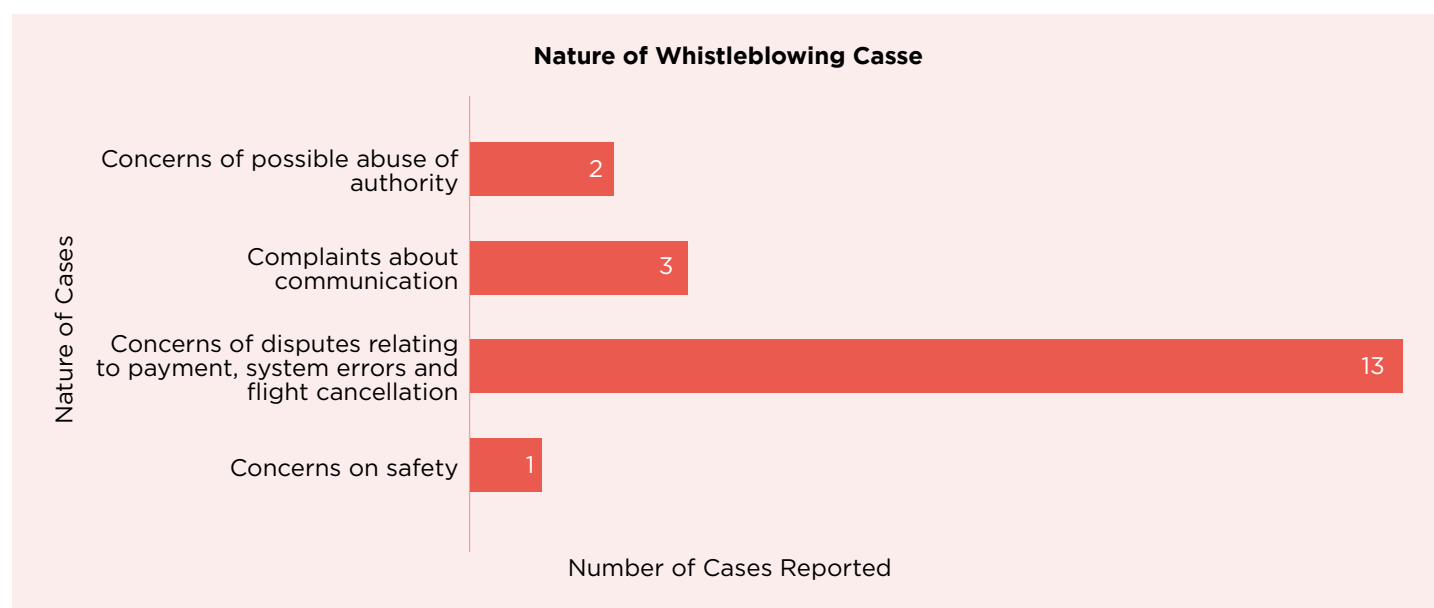Concerns can be raised through the following channels:

Email:
whistleblower@airasia.com

E-form:
www.capitala.com/whistleblowing_form.html

In 2022, we received a total of 19 reports through the whistleblowing channel, most of which concerned payments, system errors and flight cancellation. Every report was thoroughly investigated by the respective departments and resolved appropriately with follow-up actions.

Nature of Whistleblowing Casse

Nature of Cases	Number of Cases Reported
Concerns of possible abuse of authority	2
Complaints about communication	3
Concerns of disputes relating to payment, system errors and flight cancellation	13
Concerns on safety	1

RISK MANAGEMENT

Risk identification, monitoring and management are critical to the long-term viability of our business. We are guided in this regard by our Enterprise Risk Management Policy which is in line with ISO 31000:2018 standards. Our risk management practices are integrated into the Group's business processes and operations, driving risk accountability and ownership. The Policy is currently being enhanced for alignment with the Group's growth and business diversification, as well as to embed environment, social and governance (ESG) elements. We strive to improve our systems and ensure all appropriate policies and internal controls are in place to support effective risk management.

Our Enterprise Risk Management (ERM) policy outlines a standardised approach identifying, evaluating and managing risks as well as updating the risk register, analysis on business impact, and reporting on risk exposure across the Group. We have

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digitised our ERM system through an online system that enables the alignment of performance management and strategic planning with risk management in an integrated framework. The Group's ERM methodology is depicted below:

Risk Identification	→	Risk Assessment	→	Risk Control	→	Risk Monitoring	→	Risk Reporting

Recognising the criticality of addressing our sustainability matters and ESG risks, we expanded the scope of our Board Risk Management Committee (RMC) to incorporate ESG risk management. The committee was renamed the Risk Management and Sustainability Committee (RMSC) and was formalised in December 2021. The RMSC meets every quarter and is responsible for Capital A's risk strategies, policies and processes as well as ensuring the ERM framework is implemented. Following each RMSC meeting, its Chairman updates the Board on decisions made.

Capital A's risk culture is driven by a strong tone from the top, strengthened by the middle and executed at the bottom to assure good risk management behaviour at all levels of the organisation. Our three lines of defence promote robust risk governance and internal controls:

01
Management and departments

The management and respective departments are responsible for identifying and evaluating risks under their areas of responsibility.

02
Risk Management Department & Risk Management and Sustainability Committee

The Risk Management Department (RMD) and the Board's RMSC facilitate and monitor risk management processes and reporting.

03
Group Internal Audit Department

The department provides assurance on the effectiveness of the ERM framework.

> *For more information on our risk management processes and initiatives in 2022, please refer to the Statement on Risk Management & Internal Control within this Annual Report 2022 on page 207.*

Managing Our ESG Risks

This year, we have taken steps to capture and manage our ESG risks through the introduction of specific ESG risk categories on People, Safety, Health and Environment on our web-based ERM system. Our enhanced practice will enable us to drive sustainable outcomes through the identification, evaluation, monitoring, and management of material ESG risks that may arise and affect the objectives of Capital A.

Moving forward into 2023, the Group's Risk Management Policy is being enhanced to incorporate ESG risk management which will guide the Group in continuous strengthening of our ability to manage material ESG risks.

Economic (cont'd)

Corporate Governance

Addressing Our Climate-Related Risks

As climate-related risks become more urgent, we are guided by the TCFD framework to identify specific risk categories to facilitate process owners in assessing and reporting risks they face in the risk management system. Climate-related risks are also on our Business Continuity Plan activation watchlist where they are constantly monitored to ensure zero disruption to our operations. The likelihood and impact of climate-related risks are measured by the different entities across the Group based on geolocation variables.

As a signatory of the TCFD, we also identified and discussed the potential financial impacts of our physical and transition risks while outlining mitigation strategies to address them. This is highlighted in the Environmental section on page 94 of this Sustainability Statement.

> *For more information on our climate-risk analysis and TCFD report in 2022, please refer to the Environmental section within this Sustainability Statement 2022 on pages 128-149.*

Inculcating a Culture of Risk Awareness

For optimum risk management, our Allstars need to understand the risks we face and be part of actions to manage and mitigate them. We therefore seek to cultivate a strong risk culture among Allstars throughout the Group. Engagement sessions are organised with key management in the various entities and the RMD to keep Allstars abreast of important risk matters and to strengthen the overall risk ecosystem. In 2022, the RMD engaged with all lines of business. Parallel to this, new Risk Officers (ROs) and Business Continuity Officers (BCOs) are provided regular hands-on training while existing personnel undergo refresher training. In 2022, 99% of our ROs and BCOs completed their training on our web-based risk management system.

Business Continuity Management

Business Continuity Management complements risk management by ensuring the ability of an organisation to withstand unexpected shocks without any interruption to operations. Capital A has a Business Continuity Plan (BCP) under which key functions are assessed using a Business Impact Analysis (BIA). The BIA clearly outlines the functionality of people, processes and systems, and evaluates the impact of any failure in these functionalities. All key functional heads review the BCP on a quarterly basis.

In the wake of increasing cyber threats, during our regular BIA in 2022, we migrated our on-premise Disaster Recovery hot sites to cloud solutions which, in addition to strengthening our business continuity, minimises electricity usage. Future plans include incorporating climate-related disasters into the BCPs. We recognise the severity of extreme weather events and have identified the need to update and implement more robust BCPs. In 2023, we plan to include the following into our BCPs:

Heatwave
As heatwaves could have a significant impact on airside operations, their BCPs will include adjusting working hours, providing additional cooling measures and ensuring adequate water supplies for ground Allstars.

Flood
With increased precipitation and rising sea levels, flooding is becoming a more significant threat to our business operations. Flood BCPs may include measures such as moving equipment to higher ground, developing emergency communication plans, and ensuring safe evacuation routes for Allstars.

Wildfire
In wildfire-prone areas, businesses may need to develop BCPs that include measures such as creating defensible spaces around buildings, ensuring adequate water supplies, and developing evacuation plans for Allstars and customers.

Guest Experience

(GRI 2-29, 3-3)

Capital A strives constantly not just to meet but to exceed the needs and expectations of our guests and customers through the delivery of quality service and products. As we expand into digital ventures, we enhance the experience of our customers and guests through new products and offerings in our travel and lifestyle airasia Super App. Using data, we seek to deepen our understanding of customers' needs so that we can create meaningful experiences at every point of their journey with us.

2022 Performance Overview

>16.8 mil
guests performed **self check-in**

>750,000
active FACES guests

>473,000
online learners
utilised on-demand learning platform to upskill

77%
on-time performance

84%
load factor for **short-haul flights**

90.9%
customer satisfaction score for BigPay

93%
customer satisfaction score for airasia academy

Our Management Approach
- ISO 10002:2018 (Quality Management - Customer Satisfaction)
- AirAsia Complaints Handling Policy Statement

Supporting the UN SDGs

17 PARTNERSHIPS FOR THE GOALS

CUSTOMER ENGAGEMENT

As a trusted brand, we seek to improve our services across all our customer touchpoints while maintaining open lines of communication with our customers in order to identify opportunities to improve our services. We leverage big data and predictive analytics to analyse and predict our customer behaviours for a better customer journey with us. Guests are encouraged to visit our website for more information about Capital A and the services/products we offer. They can then select from the digital channels that we offer as consumer touchpoints. These include social media platforms (Twitter, Facebook, Instagram), messaging platforms (WeChat, WhatsApp, Messenger), live chat, chatbots and email.

Upon receiving an enquiry, our Customer Happiness team is responsible for addressing questions and concerns raised to serve guests better, faster and more seamlessly. The team maintains efficiency and timeliness of our guest engagement using a three-pronged approach:

√   Leveraging AI to personalise our AirAsia Chat service by identifying patterns and needs
√   Building a new chatbot flow for more effective enquiry resolution
√   Improving our speed of communication

Economic (cont'd)

Customer Engagement

Enhancing Guest Experience

<u>A Seamless, Contactless Travel Journey</u>

As part of our digital transformation, we are constantly seeking ways to utilise innovative solutions to enhance the customer experience. To create a seamless journey with AirAsia, we put in place various solutions to enable guests to carry out travel requirements independently. One of many positive results has been reducing or entirely eliminating their queueing time at check-in counters.

Upgrading airasia Super App

This year, we added the following new features to our airasia Super App:
- automatic update of boarding pass for any delayed or retimed flights as well as change in boarding gate.
- automatic change of document verification status once documents are confirmed by counter staff.
- check-in of multiple guests in a passenger name record (PNR) on the mobile app so that e-boarding passes can be easily downloaded or shared with other travellers on the same travel itinerary.

Due to the success and convenience of the technologies introduced, self check-in has almost become the default option in Malaysia, and is gaining traction in Thailand and Indonesia, where the service was launched later. In 2022, approximately 16.8 million guests performed self check-in in 2022 in Malaysia, Indonesia and the Philippines.

87% Malaysia

48% Indonesia

43% Philippines

Approximately
16.8 million
guests
perfomed self check-in 2022

Fast Airport Clearance Experience System (FACES)

AirAsia introduced the use of its biometric facial recognition technology, FACES, in 2021 to enable a contactless check-in experience including baggage drop, identity validation and pre-security clearance. The main objective is to leverage innovation and technology to digitise our processes and tighten our security measures for a safe and seamless travel experience. AirAsia also worked with Malaysia Airports Holdings Berhad (MAHB) to integrate FACES with MAHB's facial recognition based token registration technology, EZPaz at klia2 for improved pre-security clearance measures. This year alone, we had 750,000 active guests using FACES out of 54.8 million guests at klia2 from the check-in counters to pre-security areas, and boarding gates.

What Travel Guests Can Look Forward To in 2023

√   Rebranding of AVA chatbot to Ask Bo system featuring enhanced AI and machine learning (ML) capabilities to improve navigation features to address customer concerns
√   Launch of Travel Buddy to remind guests to check-in, inform them of travel requirements, and notify them of any flight disruption
√   App notification for baggage accepted at the check-in counter or self-baggage drop
√   Counter check-in or Galaxy Suite check-in will be able to push the boarding pass to guests' mobile app
√   Online receipts of any payment made at the check-in counters. Priority tags will be made available as a self-print option for Premium flex guests

Delivering Superb Service with airasia Super App

Throughout 2022, airasia Super App developed multiple initiatives with riders, drivers and direct airline partners, channel managers and aggregator partners of the online travel agency (OTA) business. To achieve its goal of becoming the preferred travel superapp in the region, the team works continuously to enhance the customer experience across all its platforms. Below are key recent enhancements:

Platform	Initiative	2022 Progress
Flight OTA	Post-booking message	➔ Ensure that customers who book other airlines on our OTA platform receive clear communication regarding their booking confirmation and travel journey.
	Creating service level agreements (SLA) with suppliers	➔ Worked with travel agency partner, Kiwi.com, to create SLAs on booking processes to manage and minimise customer complaints.
	Email notification	➔ Instant email notifications are delivered to customers to update them on their booking status.
Delivery: Ride	Training for riders and drivers	➔ 70% of the drivers received training on ethics, customer service and career advancement opportunities.
	Increase density of riders and drivers in peak locations	➔ airasia Super App directs 'contracted' and 'employed' drivers to peak locations when necessary.
	Increase up-to-date communication through app push notifications	➔ Up-to-date news alerts on weather and transportation disruptions encourage users to use airasia ride.

Economic (cont'd)

Customer Engagement

Providing Accessible Financial Services through BigPay

BigPay is one of the fastest-growing fintech apps in the region, providing a host of products and solutions that help customers manage their daily financial needs. In 2022, several new initiatives were added to the range of products offered on the app.

Stashes

Stashes is a convenient savings and budgeting solution that enables users to organise their funds separately from their wallet balances. The next evolution of Stashes, planned for 2023, will provide wealth management/ investment solutions to enable users to manage their savings.

Personal Loans

BigPay's fully digital personal loans are part of its suite of financial services offerings that benefit underserved communities. The personal loan is designed to be accessible to all customers including those working in the gig economy who may find it challenging to access financial services from traditional institutions. This product resonates with BigPay's vision of financial inclusion.

In-app Messaging and Self-Service Advancements

For increased user ease and convenience, BigPay moved its Live Chat to in-app messaging. With Live Chat, if a session is disrupted or closed, users need to open a new session, join the chat queue again and get assigned to a new agent. With in-app messaging, no chat will be disrupted, reducing overall wait time.

BigPay has also implemented "flow-builder" to provide users with inquiry options to categorise their inquiries for faster problem-solving. Users are either:
1. directed to a specific help page article enabling them to solve their own hurdle; or
2. provided relevant data input field specifically to help solve their particular inquiry; or
3. connected to chat with a live agent.

In 2023, BigPay aims to provide a more comprehensive support system through strengthened self-service capabilities. This is to be achieved via a more dynamic application program interface (API) integration, illustrating a detailed flow of the users' app, and improving the visibility of customer touchpoints.

Making Quality Education Accessible to All with airasia academy

airasia academy places great importance on the learning experience of its students. To make learning accessible and convenient, it launched an on-demand learning (ODL) platform this year with a fully asynchronous self-learning resource consisting of 16,000 video content modules with quizzes, forums and more. This is made available to all instructor-led training reskill students so that they are able to revise and obtain supplementary learning material. airasia academy plans to integrate goal-setting as part of the ODL to allow for guided learning paths that deliver the best learning outcomes. In 2022, over 473,000 online learners utilised the ODL platform to upskill themselves.

Using a unique compression algorithm, the academy ensures its resources and videos are accessible even to learners with lower internet bandwidth without compromising the quality and resolution of the learning materials.

Spotlight: Securing Futures Through Reskilling

Razlin Rahmat joined AirAsia as a flight operator in 2018. While she enjoyed her job, when Covid-19 broke out she quickly identified the need to diversify her skillset to prepare for any potential repercussions of the pandemic. She enrolled in airasia academy's Digital Marketing course, attending classes after her 12-hour shift, for two months. Upon completion, she secured an internship with airasia academy for three months and was offered a permanent role, allowing her to transition from flight operations to digital marketing.

Razlin completed her digital tech reskilling journey within six months and is now a successful assistant manager in the academy's marketing department. Her current role allows her to use her newly acquired skills as she manages the academy's digital marketing campaigns to encourage other learners to reskill and secure their futures.

Razlin Rahmat
- Assistant Manager in the Marketing team at the airasia academy
- Former Training Disruption Planner in Flight Operations

MEASURING CUSTOMER SATISFACTION (GRI 418-1)

We recognise that our customers' using the goods and services of one business can impact the likelihood of them using other services offered in the Group. As a result, we measure customer satisfaction levels in all LOBs and set targets for improvement. This is the first year that we are disclosing customer satisfaction for businesses other than our airlines to present a more holistic view of how customers rate their experience within the Capital A ecosystem.

Airlines

Our Customer Happiness team conducts customer satisfaction surveys to gauge the Net Promoter Score (NPS) and customer satisfaction (CSAT) level for services offered across the Group. The airlines and Super App teams use NPS to assess operational and commercial performance whilst CSAT is used to assess customer satisfaction on AirAsia's schedule sanctity, pricing, service delivery at various touchpoints and other interactions with the Customer Happiness team. Surveys are sent to guests once they complete their bookings, and when they complete their journey. The survey is initiated automatically by our customer relationship management system and is conducted inhouse, with controlled access to data to ensure anonymity, confidentiality and credibility. The survey measures how satisfied our guests are with our service and where we stand in relation to key competitors.

Accountability for our NPS and CSAT lies with the CEOs of the airline and Super App teams. The Customer Happiness department shares the NPS and CSAT results with all AOC CEOs during monthly strategy meetings as well as through monthly NPS reports that are sent to Group CEOs for all AOCs. Reviews are done monthly at the Customer Experience Steering Board meetings.

We received over 2.4 million responses to our NPS survey achieving an NPS score of 36; and over 280,000 responses on our customer satisfaction survey achieving a customer satisfaction rate of 47%. We acknowledge a sharp deterioration in our scores compared to 2021 as we come out of Covid-19 hibernation. We expect our NPS scores to remain below pre-pandemic levels for another year as we navigate the challenges of rebuilding our network in the face of industry-wide shortages. However, we expect the situation to improve as our operations stabilise and as our new AI tools to speed up case handling take effect.

Economic (cont'd)

Customer Engagement

On-Time Performance

For AirAsia, flights taking off on time is one of the key determinants of guest satisfaction. To manage on-time performance (OTP), the team uses an analytical toolset that provides greater visibility of OTP factors and other metrics that affect performance. The team also applies an algorithm that enables them to predict delays four hours in advance. This allows our Operations team to mitigate and minimise the impact of the delays, our Customer Happiness team to notify guests in advance, and our Guest Services team to prepare for the new check-in time. In addition, Operations leaders conduct regular walkabouts to stay in touch with how operational processes and initiatives are performing on the ground.

AirAsia has set the target of achieving an OTP of 85%, with all AOCs reviewing their performance weekly. In 2022, it fell short of the target with an OTP of 77%, which was also reflected in a lower NPS score compared to previous years. Various initiatives are being implemented to address our customers' concerns, including the introduction of a new and improved AI-powered virtual concierge, Ask Bo, featuring enhanced ML capabilities to replace our AVA chatbot.

Despite continuing disruptions in air travel, our load factor for short-haul (<6 hours) flights increased from 74% in 2021 to 84% in 2022. Our load factor is approaching pre-pandemic levels, which we are optimistic of hitting in the next year.

	2019	2020	2021	2022
Load Factor for short haul (less than 6 hours) (%)	85%	75%	74%	84%

Another key factor determining guests' satisfaction is flight scheduling reliability. Flight cancellations have become more frequent since the pandemic – initially due to border closures and now as a result of post-hibernation industry issues including shortages in manpower, tools, parts and maintenance slots. To allay discontent, we made it our priority to refund guests who chose refunds as opposed to flight credit. Our Customer Happiness team worked with the affected AOCs and Finance teams to clear the backlog of cases, successfully resolving 98.4% of requests in 2022. We aim to resolve the remaining requests by 2023.

To manage the volume of communication being handled by our Customer Happiness agents within five working days as per our SLA, we developed self-service tools to enable guests to check their refund progress. We also improved our communication of the reasons behind flight disruptions while directing guests to channels where they could obtain updated flight information. Below are upgrades made to keep guests informed and updated at all times.

Flight disruption automation	Guests are notified instantly of any flight disruption due to cancellation or schedule changes via SMS and emails.
Instagram Messaging	AVA was integrated into Instagram Direct Message so that guests trying to connect via IG Direct messages can get instant replies. AVA will soon be replaced with our new and improved AI-powered Ask Bo.
Enhanced My Bookings platform	Guests can access a simplified self-service platform via the AirAsia mobile app to amend pre-planned disrupted booking more than 48 hours from scheduled departure time.

airasia Super App

We set targets for the different entities on the Super App to ensure the consistent delivery of quality service. The table below summarises our achievements in 2022:

Entity	Target	2022 Achievements/Initiatives
Flight OTA	Prompt confirmation for bookings	• Live Chat (AVA) button added in the email itinerary for status enquiries
Delivery - Ride Hailing	Customer picked up within 10 minutes of making a booking	• Enhanced driver assignment to alert nearest drivers first • Driver assignment prioritises 'contracted' and 'employed' drivers, who have to opt in for auto-accept where the trips are accepted automatically regardless of distance and location

	>85% completion rate	• 45% completion rate due to an imbalance between demand for rides and supply of drivers
		• We aim to achieve >80% completion rate in 2023 via:
		  - accelerating driver recruitment and driver engagement activities
		  - providing Allstar benefits to qualified drivers to increase retention
		  - improving drivers' job acceptance flow through tech implementation

Setting service level targets contributed towards an NPS score of 57 for the hotel & SNAP entity, exceeding our target of 50, while CSAT scores for our delivery, hotel & SNAP, and flight OTA entities stood at 35%, 48% and 36% respectively. Though these scores are lower than in 2021, this was due to aggressive expansion resulting in considerable flux as we endeavoured to deliver the best service to our customers.

Economic (cont'd)

Customer Engagement

Santan

Feedback on Santan restaurants is obtained from customers filling surveys at the restaurants as well as from channels such as Google and Shopee Food reviews and online surveys. In 2022, we received 260 comments with most being positive about the food and customer service. Nevertheless, 21% of the comments were to do with enhancing our meal portions and price. We also conduct a mystery shopper programme to assess our service, which encourages staff at outlets to perform optimally at all times. For inflight catering, we receive feedback from guests through cabin crew and customer care support.

BigPay

BigPay set a target of achieving a CSAT score of at least 90% and surpassed this goal in 2022 with a score of 90.9%, a 2.9 percentage point improvement from 2021.

airasia academy

At airasia academy, feedback forms are sent to participants of instructor-led training programmes whereas on-demand learning subscribers are free to use the forum to give feedback and make requests. The academy set out to achieve a CSAT of 80% and exceeded this goal with a score of 93% in 2022, a three percentage point improvement from the previous year. airasia academy continues to deliver accessible and quality education to learners.

Technology, Innovation and Information Security

(GRI 3-3)

2022 Performance Overview

5.8 mil
sheets of **A4 paper saved** through **Digital Trip Files** initiative

98%
Google Cloud **migration**

11,754
hours of **information security training**

Our Management Approach
- Information Security Policy
- Data Governance Policy
- Access Control Policy
- ISO/IEC 27001:2022 Information security, cybersecurity and privacy protection — Information security management systems

- Personal Data Protection Act 2010
- ISO27701 Privacy Information Management

Supporting the UN SDGs

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

The silver lining of the pandemic was acceleration in the pace of technology adoption, not only by companies but also consumers. More than ever, companies that provide innovative products and digital solutions are those that will gain a competitive edge. Capital A was able to transition seamlessly to a digital workplace supporting work from home and on a hybrid arrangement because of the early investments made into moving our data storage onto cloud-based systems as well as to automate all our key internal functions from performance measurements to procurement.

Starting with our airlines from the beginning, we subsequently adopted the same digital-centric approach in our other LOBs, enabling them to make a quick transition to e-commerce and offering our products and services on a single airasia Super App interface.

Digitalisation brings multiple efficiency benefits such as easing data storage, extraction and analysis, while improving information sharing for cross-functional collaborations. We have also been able to avoid printing millions of sheets of paper, thereby cutting our carbon emissions by thousands of tonnes while also reducing the need for documentation storage spaces. Conversely, digitalisation comes with its own set of challenges with phishing, scams and malware attacks being just some of the issues that we have to confront.

In this year's report, we are revamping this section to first provide a more comprehensive picture of the use of advanced technologies and innovation to drive business across the Group; followed by a section on Information Security where we discuss how we are constantly working to strengthen our cybersecurity systems to support our growth ambitions. This will provide a more holistic view of the ESG touchpoints of Capital A in our transition from an airline into a digital lifestyle company.

Economic (cont'd)

Technology, Innovation and Information Security

DIGITAL AT THE CORE OF OUR OPERATIONS

In 2020, we launched a major three-year project to transition our entire operations to the cloud as part of our airasia 2.0 shift beyond airlines into a digital platform that connects millions of AirAsia customers to multiple new product and service providers.

This took place through two major transformations. The first was in our consumer-facing interfaces. While we once operated airasia.com as an e-commerce site exclusive to selling airasia flights and ancillary airline products, starting late 2019, we partnered with Kiwi.com to enable customers to purchase flights on other airlines providing them the choice to make their own selections and connections. We also expanded airasia.com as a lifestyle e-commerce platform where customers can purchase a variety of goods and services from food to ride-hailing.

The launch of airasia Super App in October 2020 enabled us to reach a new generation of consumers who conduct most of their activities on their mobile devices. Other than flight and hotel bookings, airasia Super App offers food and parcel delivery, ride-hailing, financial services and more, anchored by an integrated rewards programme and a mobile wallet. Having developed an extensive suite of products, in 2022 airasia Super App expanded geographically taking its offerings across Asean. In December 2022, airasia Super App officially launched in Bali, Indonesia, together with airasia ride, enabling end-to-end travel booking convenience for users. The team's efforts were rewarded by year-on-year (YoY) monthly active users (MAU) growth of 76% from 7 million in December 2021 to 12.4 million in December 2022, with transactions concentrated predominantly in travel verticals including Flights (AirAsia), FlyBeyond (Non-AirAsia flights), Hotels, SNAP, Transport and Holidays.

The second major shift was in moving our entire data storage system onto Google Cloud, starting with internal systems and communications channels. One of the primary benefits of cloud computing is the ability to scale resources up and down based on demand, which means we do not need to invest in additional hardware or servers when launching extensive promotions such as our low-fare or free seat campaigns. This ultimately helps us to save approximately 30% of our cost as compared to using on-premise infrastructure.

In April 2022, airasia Super App and Google Cloud announced a five-year strategic collaboration that aims to combine core competencies of both organisations around the following four pillars:

Fostering an agile culture and co-innovation talent engine

Ensuring seamless user access anytime and anywhere, on any device

Unlocking data-driven insights to fuel growth of micro-, small- and medium-sized enterprises (MSMEs)

Empowering partners and developers to co-innovate and contribute

The partnership builds on our existing relationship with Google to transform our workplace into an integrated community which allows Allstars to access the entire Google Suite of tools, the latest being Google Spaces which was launched in June 2022 across the Capital A group of companies. This has boosted productivity by streamlining communications, reducing server downtime and facilitating collaboration. As of end 2022, we had successfully migrated 98% of our data storage onto Google Cloud, up from 87% at the end of 2021. Our approach as we move into 2023 is to continue with our Cloud First Policy where we prioritise solutions that support cloud-hosting.

Since the onset of Covid-19 from the first quarter of 2020, Capital A has experienced minimal loss in staff productivity as our cloud transition enabled Allstars to work remotely and communicate easily with each other. With the return to normalcy, we have retained the flexibility of hybrid arrangements as it cuts Allstars' commute time and helps us reduce our Scope 3 emissions. Each entity has its own work schedule, with Super App exercising a 2+3 hybrid working arrangement of two days in the office and three days at home. As for the emissions reduction from less road travel, an assessment carried out showed that Allstars' commute to RedQ and RedHouse offices contributes to 0.8% of our total Scope 3 emissions.

> *For more information on our Scope 3 emissions, please refer to the Climate Strategy section in this Sustainability Statement on page 140.*

In addition, we plan to emulate Google in terms of reducing our Scope 2 emissions via migration to the cloud. Google has been carbon neutral since 2007, offsetting all emissions through the use of renewable energy and purchase of carbon credits.

Key digital innovations across Capital A introduced in 2022 that are enhancing the consumer experience while cutting our carbon footprint are described below:

<u>Airlines</u>

Initiative	Description	Results
Digital Trip Files (DTR)	Trip files are sets of documents filed by Ground Operations to record flight arrivals. Each file contains an average of 20 sheets of A4 documents. DTR enables direct upload of trip files to a secure cloud platform, cutting printing and man-hours required to perform these functions.	Regulatory approval secured from the civil aviation authorities of Malaysia, Thailand and the Philippines with approval from Indonesia agreed in principle pending official paperwork. Estimated printing avoided: 6.5 million A4 sheets per year
Auto-Upload of Passenger Manifest	Passenger manifest contains details of passengers and flight number. All our AOCs used to print their passenger manifests a day prior to flights in case of system failure. Now we have automated the functionality to store in our local drives.	Zero sheets of paper printed (2019: 4.8 mil sheets printed) Estimated printing avoided: 2 million A4 sheets of paper
E-Manuals	Hard copies of the Ground Operations Manual (Parts 1 and 2) and Station Manager's Manual are replaced by digital manuals.	Regulatory approval obtained for e-manual distribution for all AOCs Estimated printing avoided: 242,350 A4 sheets per year

Economic (cont'd)

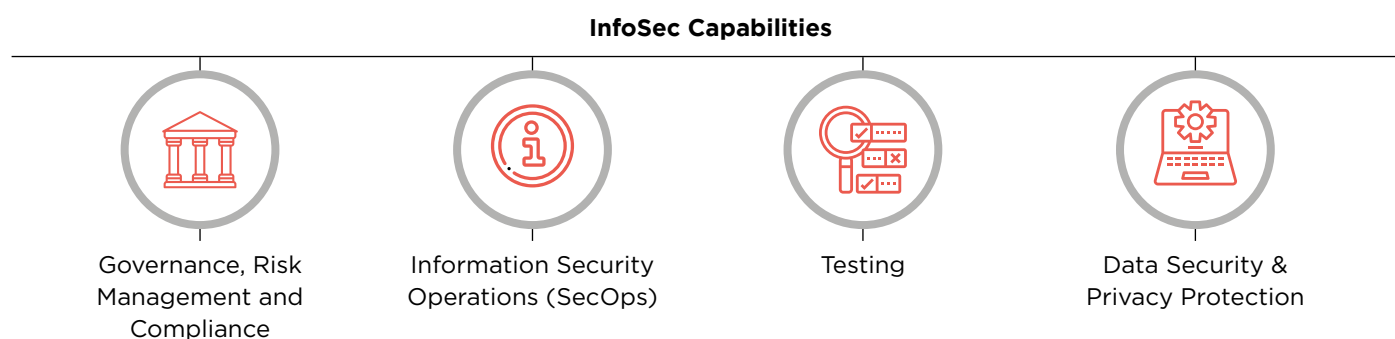## Technology, Innovation and Information Security

Initiative	Description	Results
Self Check-In	Promote Self Check-In and Mobile Check-In to cut queues and printing.	Utilisation rates: 88% 47% 43% In 2022, 16.8 millions guests self checked-in via web and mobile Estimated printing avoided: 200,000 paper boarding passes per day
Sharing Functionality of e-Boarding Pass	Guests with combined bookings can check in for all travellers on the same device and share e-boarding passes via multiple channels eg WhatsApp, Telegram, email.	Utilisation rates: 44% 15% 18% Approximately 6.6 million guests benefited from the sharing function
e-Attestation	e-attestation is the attestation of pilots' and cabin crew's physical documents in digital format. These include qualification cards, training records and attendance sheets. We developed an app enabling cabin crew and pilots to check attestation information on their mobile devices, which are linked to the airplane information management system (AIMS).	Trial run conducted following CAAM's approval. We now aim to launch e-attestation for all pilots and cabin crew in 2023.

Other Lines of Business

Initiative	Description	New in 2022
Santan Inflight Point of Sales System (ePOS)	ePOS, also known as Dolly, is an electronic system used to process sales transactions. It helps improve demand planning and inventory management. With better forecasting and supply chain management, Santan is able to significantly reduce food wastage while increasing revenue.	Enhanced data usage in our ePOS system to be able to analyse purchasing behaviour on different routes. We are also running a trial for In-Seat Ordering for MAA, enabling guests to order inflight.
airasia academy bulk purchase and user management	Learning Management System (LMS) platform developed to: 1) allow individuals and organisations to make bulk purchase orders for multiple users 2) allow full learning and development tracking	Expanded user coverage to include Malaysian Investment Development Authority, Yayasan Chow Kit and Multimedia University. Approximately 80,000 users have signed up.

ROBUST INFORMATION SECURITY

Increasing digitisation and digitalisation exposes us to greater risks of data being lost or compromised. To protect the integrity of our data, we invest into ever more effective cybersecurity systems and processes. As detailed in our 2021 Sustainability Statement, the information security architecture of Capital A is built on four pillars:

InfoSec Capabilities

Governance, Risk Management and Compliance	Information Security Operations (SecOps)	Testing	Data Security & Privacy Protection

Under the Architecture and Programme Management, we have implemented eight new initiatives to enhance our information security in 2022. Details of the initiatives can be found under the respective pillars.

Group Information Security

Information security is governed at three key levels in our organisational hierarchy. While the Board has overall responsibility for information security at Capital A, it is supported by the Group Chief Information Security Officer, the Group Information Security Team and Heads of Department.

Role	Description
Group Chief Information Security Officer (CISO)	• Process owner of all assurance activities related to confidentiality, integrity and availability of data regarding the company, employees, customers and business partners • Establishes the Group's information security policy, working with executive management to establish, implement and maintain information security management programmes to ensure information assets are adequately protected • Reports regularly to the Board, providing updates on information security posture, as well as proposed changes and solutions to strengthen the security and protection of the company's business environment
Group Information Security Team	• Responsible for establishing information security objectives and requirements, and ensuring compliance with published information security policies, procedures and guidelines • Defines and implements the Data Governance Policy outlining the roles and responsibility of information management based on classifications • Responsible for risk mitigation and control processes for security incidents • Ensures security controls are adequate and regularly tested • Designs and conducts Information Security Awareness Training for Allstars
Heads of Department	• Responsible for compliance with information security policies and requirements in their business operations • Liaise directly with Group Information Security on any matters relating to information security such as incidents, audits, risks, any concerns and/or exceptions to information security policies

Economic (cont'd)

Technology, Innovation and Information Security

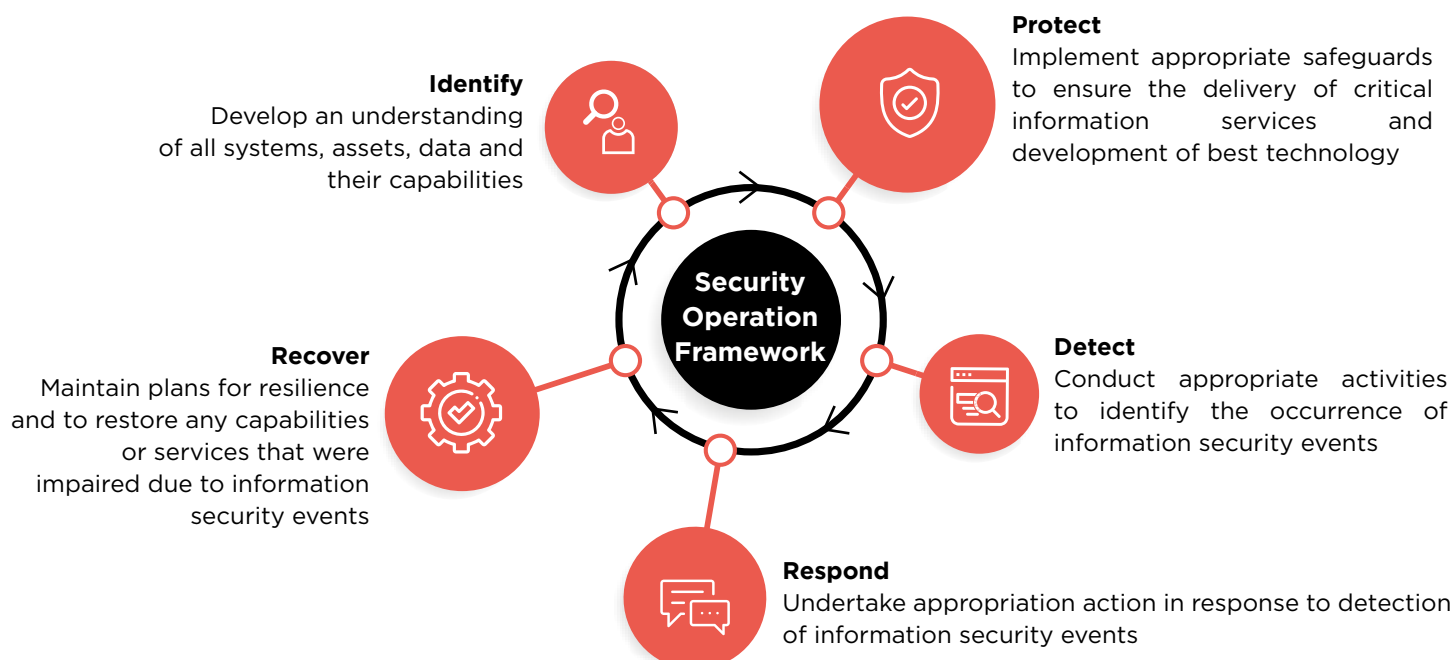### 1) Governance, Risk Management and Compliance

Information Security Governance, Risk and Compliance (InfoSec GRC) is responsible for managing Capital A Group's governance, risk management, and compliance with industry and government regulations. InfoSec GRC also provides a structured approach to aligning information security with organisational objectives.

We empower our Allstars, from non-executives to senior management, with the knowledge to protect their data as well as the Group's and our stakeholders' data. The following initiatives were implemented in 2022.

Initiative	Description	Outcome
Implementation of automated security awareness platform	An upgrade from the existing e-learning portal. The solution comes with full-fledged updates on training content, evaluation, reminders, simulations of cybersecurity threats to users and local content.	Automation follow-up to ensure the completion of the training.
Implementation of automated security compliance and risk workflow	This application is capable of managing multiple compliance requirements, such as ISO 27001 on information security management and Payment Card Industry Data Security Standard (PCI-DSS). The tool will be able to centralise risk for our airlines and other LOBs.	Eliminate duplication of compliance frameworks, centralising risk, response consolidation and documentation for audit validation.
Implementation of compliance assessment through an issue tracking software, Jira	Information security checklist which underlines all the best practices according to the Information Security Policy. The security assessment in Jira includes new additions such as data and access management.	All application/product releases are validated against Information Security upon Go-Live.

2) Information Security Operations (SecOps)

Guided by the US National Institute of Standards and Technology Cybersecurity Framework, SecOps has been structured to have five core functions (as depicted below). All the functions are performed concurrently and continuously to create an operational culture that addresses information security risk.

Identify
Develop an understanding of all systems, assets, data and their capabilities

Protect
Implement appropriate safeguards to ensure the delivery of critical information services and development of best technology

Recover
Maintain plans for resilience and to restore any capabilities or services that were impaired due to information security events

Detect
Conduct appropriate activities to identify the occurrence of information security events

Respond
Undertake appropriation action in response to detection of information security events

Security Operation Framework

Below are some of the key initiatives we have implemented to strengthen our information security operations.

Initiative	Description	Outcome
Upgrade of endpoint detection and response (EDR) system	A security solution that detects, investigates and responds to security incidents on endpoint devices such as laptops, servers and mobile devices. EDR solutions are designed to identify and respond to advanced threats such as malware and ransomeware that can evade traditional security controls such as antivirus and firewalls.	To improve organisational security with the ability to identify and respond to advanced threats.
Implementation of user account/identity protection (IDP) system	A system that is able to provide visibility, monitor and identify vulnerabilities and misconfiguration of the user accounts management system.	Any abnormal user account activity, detected misconfiguration or vulnerability of the active directory system will be triggered and taken care of by the respective team.
Upgrade of web application security solution	A set of security solutions that is put in front of public facing websites.	Public facing websites are protected from malicious attacks.

Cybersecurity Awareness

We take precautionary measures to enhance Allstars' awareness and knowledge of cyber threats to cultivate cyber risk awareness and a culture of compliance with security measures and protocols. In order to protect personal and Group data, and improve our preparedness for unexpected events, regular training is provided on cyber issues that are current and relevant. In 2022, over 10,000 Allstars attended a total of 11,754 hours of information security training.

Economic (cont'd)

Technology, Innovation and Information Security

Programme	Description
Information Security Awareness Education	Mandatory training for new joiners and annual refresher for existing Allstars. The programme helps Allstars understand the role they play in combatting information security breaches.
Posts on Google space	Bi-weekly sharing of new trends, best practices and reminders of information security
Cyber Drill (Table Top)	Annual simulation of cyberattacks on digital systems within the Group. Respective teams need to respond, troubleshoot and remediate the issue. The exercise helps the information security team to identify and rectify gaps.
Secure Coding Awareness Training	Designing codes that adhere to security best practices, safeguarding and protecting published codes from vulnerabilities. The training is intended for developers and software engineers, delivered annually.
Information Security Sharing	Knowledge-sharing sessions led by CISO

3) Testing

The main focus of Information Security Testing is to give assurance of the adequacy of security controls by coordinating security reviews through vulnerability assessment and penetration testing (VAPT) of the Group's IT infrastructure, network and web applications.
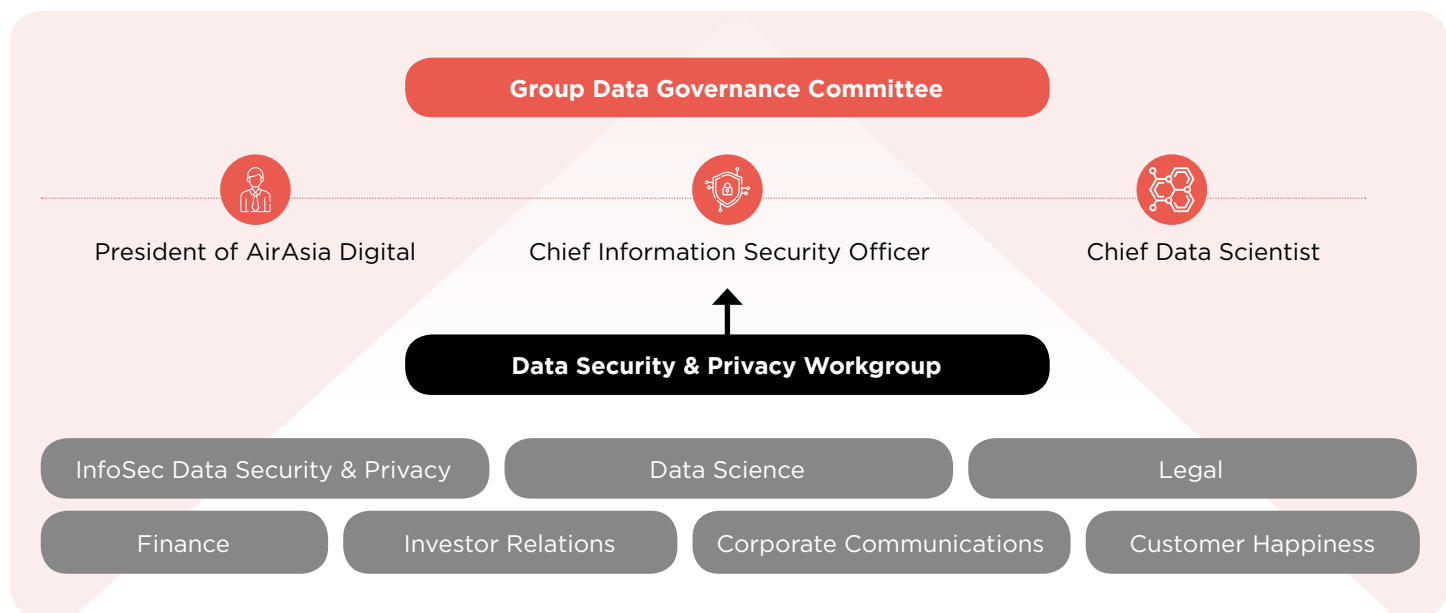
VAPT allows us to have a more detailed view of the threats facing our applications. Our penetration testers are responsible for identifying vulnerabilities within the Group's computing environment and for writing consumable VAPT reports. These reports are sent to the respective system or application owner for remediation.

The team is also responsible for tracking the remediation progress, guiding the use of technology in line with information security requirements and conducting source code reviews to enhance current applications.

In 2023, we plan to restructure our Infosec Testing team to fully utilise the capabilities of VAPT, RedTeam Exercises, and Threat Intelligence & Vulnerability Management. Our Infosec Testing enhancement focuses on strengthening the organisation's computing environment from cyber attack and cyber crime within technologies usage and users knowledge.

4) Data Security and Privacy Protection

Capital A complies with the Malaysian Personal Data Protection Act 2010 and other regulations on data protection in the respective countries of operations. We have in place a formal structure for data governance, which ensures the availability, usability, integrity and security of data. All Allstars are made aware of our data governance processes through annual training conducted by the Information Security division. A Data Access Approval System has been created and integrated with our IT Service Desk to automate the process to review and approve requests to access data belonging to the Group.

Group Data Governance Committee

President of AirAsia Digital   Chief Information Security Officer   Chief Data Scientist

Data Security & Privacy Workgroup

InfoSec Data Security & Privacy   Data Science   Legal

Finance   Investor Relations   Corporate Communications   Customer Happiness

Various initiatives have been implemented over the years to safeguard the data of Allstars and customers, including email scans, limiting access to documents on Google Drive to internal or authorised personnel, as well as creating a data owner handbook to increase awareness of the responsibilities of various data roles, data security concerns, and privacy risks. In 2022, the Group Data Centre of Excellence team established a governance framework to ensure our data mesh architecture is properly secured and does not pose privacy risks. The Group InfoSec has also disabled the use of USB flash drives to safeguard Company information. In the next year, an array of initiatives will be carried out to further enhance our data privacy and protection.

Spotlight: Protecting the Data of BigPay Customers

As a digital neobank, BigPay continuously tightens its security protocols to protect customers' data. In 2022, it engaged a vendor to set up a Security Operations Centre (SOC) to monitor its production logs. The SOC is expected to be completed and functional by February 2023. Meanwhile, efforts to block scams have led to a significant reduction in their incidence. Initiatives undertaken include detecting and preventing the use of cloned apps, and a transition from SMS authentications to Smart Links.
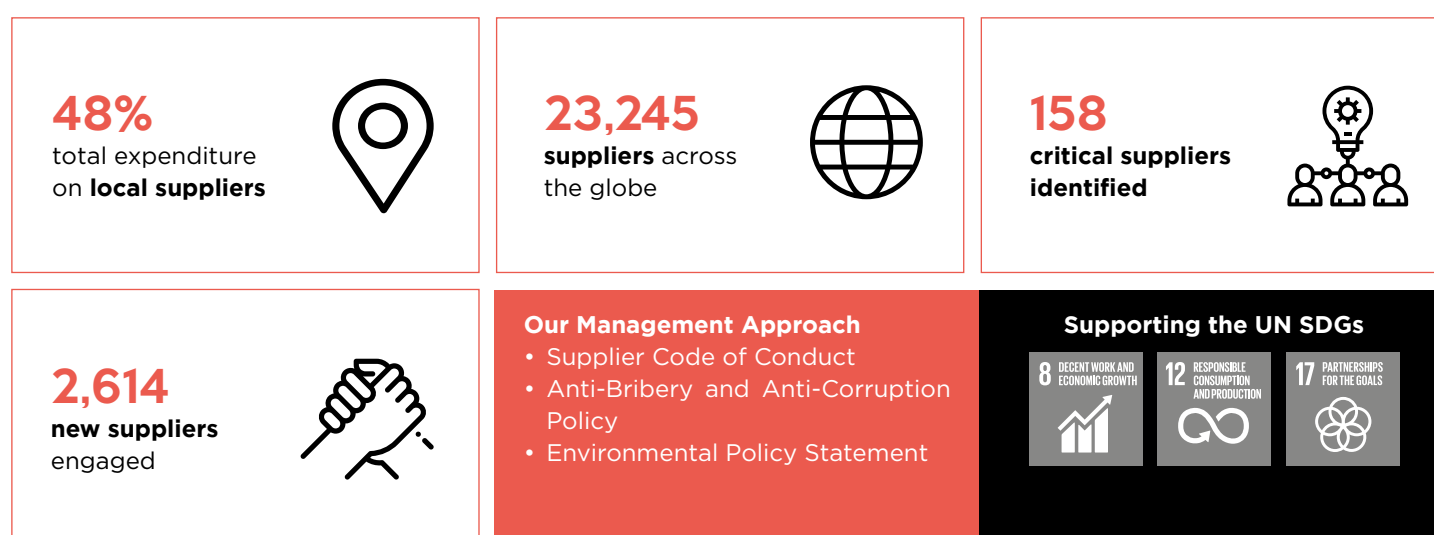
Economic (cont'd)
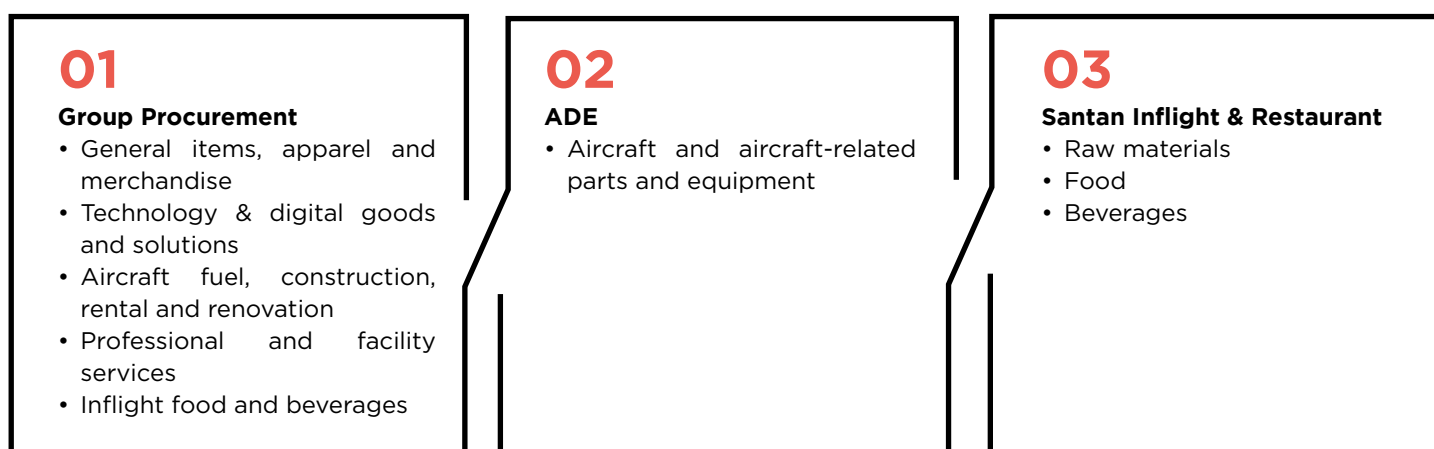
Supply Chain Management

(GRI 3-3)

Capital A has a wide range of suppliers who support our airline business and subsidiary lines of businesses. We seek to build strong relationships with our suppliers, helping them to grow as they help us build our businesses. Effective supply chain management requires collaboration among suppliers, distributors, and the Group to ensure goods and services are delivered in a timely and cost effective manner. Where feasible, we source from local suppliers in each country of operation in order to stimulate the local economy. While supporting our suppliers' growth, we also use our influence to shape a sustainable supply chain through responsible and ethical sourcing, as guided by our Supplier Code of Conduct.

2022 Performance Overview

48%
total expenditure on **local suppliers**

23,245
suppliers across the globe

158
critical suppliers identified

2,614
new suppliers engaged

Our Management Approach
• Supplier Code of Conduct
• Anti-Bribery and Anti-Corruption Policy
• Environmental Policy Statement

Supporting the UN SDGs
8 DECENT WORK AND ECONOMIC GROWTH
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
17 PARTNERSHIPS FOR THE GOALS

In previous sustainability reports, our disclosures have focused only on Group procurement practices. This year, we are expanding our disclosure by covering three key entities that together account for the majority of our Group procurement. This is a first step that we are taking to provide more complete coverage of the procurement practices and performance of the entire Capital A ecosystem.

01
Group Procurement
• General items, apparel and merchandise
• Technology & digital goods and solutions
• Aircraft fuel, construction, rental and renovation
• Professional and facility services
• Inflight food and beverages

02
ADE
• Aircraft and aircraft-related parts and equipment

03
Santan Inflight & Restaurant
• Raw materials
• Food
• Beverages

Governing Our Supply Chain

As the central body of supply chain management at Capital A, Group Procurement acts as a shared service provider to all Group entities for the procurement of high-value common goods and services. It also serves as the governing body to standardise management processes through the use of a cloud-based procurement management system, Oracle, to streamline purchasing and sourcing needs across all entities. Nevertheless, it is the individual entities' responsibility to procure strategic or tactical goods and services specific to requirements.

ADE, for example, has its own procurement team that focuses on procuring aircraft related goods and services such as aircraft parts and components. As for Santan, the procurement of raw materials and food for restaurants is managed by its inhouse product and quality team where the team assesses and filters vendors to ensure the supply of high quality products. Inflight food and beverages with long shelf lives are managed by Group Procurement as these high-volume items are usually purchased in bulk.

All suppliers are required to register in Oracle and fill up a supplier questionnaire upon registration on the platform that assesses the quality, cost competitiveness, lead time, equipment safety, training provisions, and adherence to relevant laws and regulations. As we take anti-bribery and anti-corruption practices seriously, it is mandatory for our suppliers to acknowledge our Anti-Bribery and Anti-Corruption (ABAC) Policy and the Supplier Code of Conduct (SCOC) during the registration process, before conducting business with us.

Supplier Code of Conduct (GRI 408-1, 409-1)

Our Supplier Code of Conduct (SCOC) sets out our expectations for all our suppliers, current and prospective, across all entities regarding human rights, health and safety, ESG issues and risks, sustainable procurement practices, ethical business conduct, and zero tolerance for bribery and corruption. The SCOC is communicated to suppliers and vendors through our public corporate website, contracts, purchase orders, and emails to ensure that our suppliers understand our expectations and standards when conducting business with us.

Upon signing a contract with Capital A, suppliers and vendors engaged by Group Procurement acknowledge the SCOC through an embedded clause that requires them to comply with the SCOC. ADE adopts a similar practice while our team at Santan is working to improve on this in the near future. As a Group, we are also working towards making the SCOC acknowledgment mandatory through Oracle in 2023.

For more information on our Supplier Code of Conduct, please visit www.capitala.com/misc/AAPROF006_Supplier_Code_of_Conduct.pdf

Group Procurement is now focusing on improving the social aspect of ESG by working with our Group Safety department to include more safety-related criteria in the supplier registration questionnaire, and will be looking into strengthening the environmental aspect in the future.

Supplier Selection Process (GRI 308-1, 308-2, 414-1, 414-2)

Stringent supplier and vendor selection is important to mitigate the risks in our supply chain and maintain responsible conduct in alignment with our SCOC. This includes ESG considerations and practises as highlighted in the SCOC. In 2022, we welcomed 2,614 new suppliers into our network after rigorous selection through our supplier selection process. The diagram below summarises our selection process:

Step 1:
Request for Quotation or Proposal
Potential suppliers are invited to participate in a Request for Quotation or Proposal. All potential suppliers and vendors must comply with the Group's SCOC.

Step 2:
Assessment and Evaluation
Submissions are evaluated and assessed based on suppliers' ability to meet our specifications, target price, quantity, quality, delivery location and other operational/commercial requirements, as well as financial health. Assessment of any supplier is subject to the acceptance of SCOC, including meeting our ESG requirements.

Step 3:
Selection and Approval
Recommended suppliers are presented to the relevant procurement approvers or stakeholders for review and approval. A contract will be put in place for clarity of responsibilities and accountabilities for both the Group and the supplier, with the support of our Legal Team.
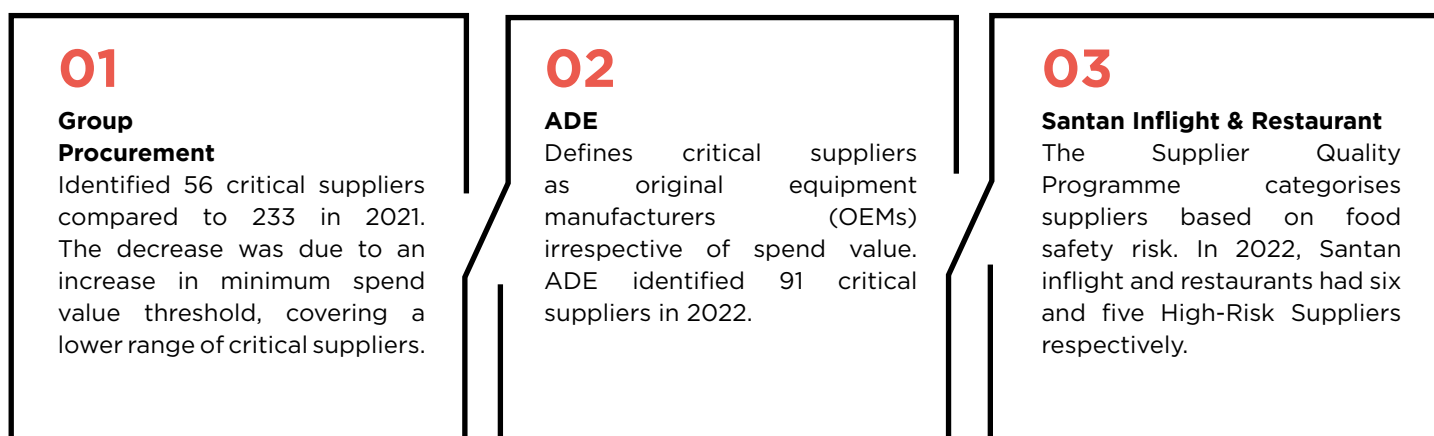
Economic (cont'd)

Supply Chain Management

We strive to build strong and productive relationships with all our suppliers. ADE, for example, hosts regular one-on-one discussions with suppliers to seek feedback and gain insights into new practices and price volatility in the marketplace. In 2022, however, such conversations were put on hold as our main priority as a Group was to recover our financial health. We look forward to reconnecting with our suppliers through open dialogue in the near future.

Our Critical Suppliers

Our critical suppliers are those that have been identified as providing products or services that are critical to our business. Group Procurement and the individual procurement teams of ADE and Santan use different criteria to determine the criticality of suppliers. This year, we identified 158 critical suppliers for the three entities shown below:

01

Group Procurement
Identified 56 critical suppliers compared to 233 in 2021. The decrease was due to an increase in minimum spend value threshold, covering a lower range of critical suppliers.

02

ADE
Defines critical suppliers as original equipment manufacturers (OEMs) irrespective of spend value. ADE identified 91 critical suppliers in 2022.

03

Santan Inflight & Restaurant
The Supplier Quality Programme categorises suppliers based on food safety risk. In 2022, Santan inflight and restaurants had six and five High-Risk Suppliers respectively.
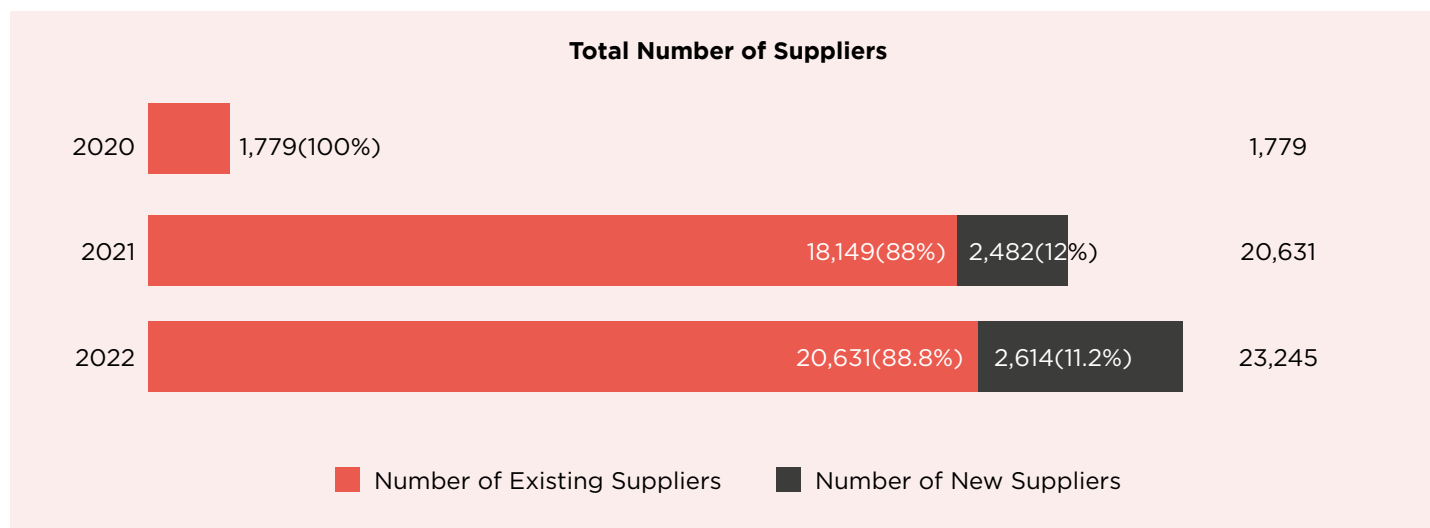
Group Procurement evaluates our critical suppliers annually to assess their performance and manage our risks. The evaluation covers criteria such as quality, service level, compliance with respect to relevant laws, safety, and ESG practices, with our critical suppliers receiving a weighted score ranging from 'poor' to 'excellent'. We actively engage with suppliers that underperform to assess how we can help to improve their scores and performance. In 2022, a total of 11 critical suppliers received performance evaluations.

ADE's procurement team takes a similar approach on conducting a critical supplier performance evaluation every two years to assess the quality, cost competitiveness and reliability of the supplier's goods and services where evaluated suppliers receive a weighted score. Critical suppliers who underperform or do not perform to their service level will be removed from the vendor list.

Santan evaluates its suppliers at the end of every year to assess key criteria such as food safety, quality, pricing, and on-time delivery. For inflight services, suppliers who underperform will receive a penalty while underperforming restaurant suppliers will be removed from the vendor list.

Our Suppliers Across the Countries We Operate In (GRI 204-1)

Total Number of Suppliers

Year		Total
2020	1,779(100%)	1,779
2021	18,149(88%) 2,482(12%)	20,631
2022	20,631(88.8%) 2,614(11.2%)	23,245

■ Number of Existing Suppliers   ■ Number of New Suppliers

Note: Total number of suppliers for all entities in Capital A.

In 2022, we grew our supplier network by 12.7% from 2021 to a total of 23,245 suppliers. As we operate at a regional and international level, we do our best to support local economic development of the countries we operate in by procuring goods and services from local suppliers where possible. Excluding fuel, aircraft purchase and lessors, Group Procurement invested approximately 48% of our procurement expenditure on suppliers local to Malaysia, Indonesia and the Philippines, compared to 38% in 2021. Most of our expenditure (72.7%) was on local Malaysian suppliers, followed by Indonesian suppliers (13.8%) and Filipino suppliers (9.5%), with other international suppliers making up the remaining 4.1%. This increased investment to our network of 1,326 local suppliers will help stimulate local economic development, especially after the relaxation of pandemic restrictions and reopening of economic activity.

Proportion of Expenditure on Local Suppliers

Indonesia
13.8%

Others
4.1%

Philippines
9.5%

Malaysia
72.7%

Note: Expenditure on suppliers local to Malaysia, Indonesia, and the Philippines. This excludes fuel, aircraft purchase and lessors

Due to the technical nature of ADE's services where the aircraft requires specific high-end components, ADE sources most of its items from international suppliers. Of its 111 suppliers, 19 are local and 92 are international. In 2022, ADE invested 4% of its expenditure on local suppliers, for the procurement of aircraft components to support the local economy whilst maintaining the safety and quality of our aircraft.

As Santan depends on fresh ingredients for inflight catering and restaurant meals, the team depends predominantly on local suppliers. In 2022, 90% of Santan's expenditure for restaurants was on local suppliers, whilst 100% of supply for inflight services was from local suppliers.

Environmental

Climate Strategy

(GRI 3-3)

As it becomes increasingly critical to address climate change, we acknowledge the need for the Group to be accountable for our climate-related and environmental impacts. We also recognise that there is growing investor demand to embed greener practices into our core business to reduce our carbon footprint. To build back better and responsibly, Capital A has taken actions to strengthen our environmental commitments and prepare for the future.

2022 Performance Overview

54,360 tonnes of CO_2 **emissions avoided** through fuel efficiency programme	**1,917,390.2** tonnes of CO_2 **emissions (Scope 1)**	**4,459.3** tonnes of CO_2 **emissions (Scope 2)**
410,250.7 tonnes of CO_2 **emissions (Scope 3)**	**6,122** MWh **electricity consumption** in offices and buildings	
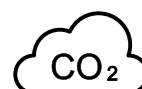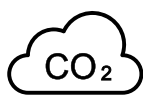
Our Management Approach
- Environmental Policy Statement
- Sustainability Policy
- Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) requirements
- International Civil Aviation Organization requirements
- Occupational, Health, Safety and Environment Manual
- Environmental Quality Act 1974

Supporting the UN SDGs

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
17 PARTNERSHIPS FOR THE GOALS

We have positioned ourselves to accelerate our climate strategy by declaring the ambition to achieve net zero carbon emissions by 2050 as well as by aligning with the Task Force on Climate-related Financial Disclosures (TCFD) reporting framework to identify and disclose our climate-related risks and opportunities. This encompasses the management of our greenhouse gases (GHGs), energy consumption and water usage, underpinned by our Environmental Policy. We are guided by our Sustainability Redbook and its targets to advance ongoing efforts to reduce our climate impact across our value chain. In 2022, no sanctions were recorded for any non-compliance with environmental legal requirements.

In previous years, our reporting focused on our aviation business as it generates the bulk of our Scope 1 emissions. In the main, we are continuing with this approach as throughout the year we placed the highest emphasis on strengthening our aviation sustainability strategies to respond to ever-growing interest and intensifying scrutiny from external stakeholders. Our commitment is not only to meet minimum standards but to aspire to industry best practice given the prominence of the AirAsia brand in the global aviation industry.

At the same time, we were able to broaden our coverage beyond aviation to account for the environmental impact of Capital A's non-airline businesses. Our first step towards this end was to include Scope 3 emissions in this year's report by encompassing the emissions of Teleport and airasia ride.
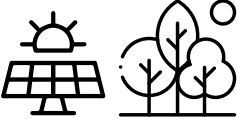
NET ZERO BY 2050

To fully align with the global ambition to achieve net zero by 2050, Capital A developed our own net zero roadmap in 2021, identifying four pathways for AirAsia to converge to our long-term emissions reduction goal.

Roadmap Towards Net Zero by 2050
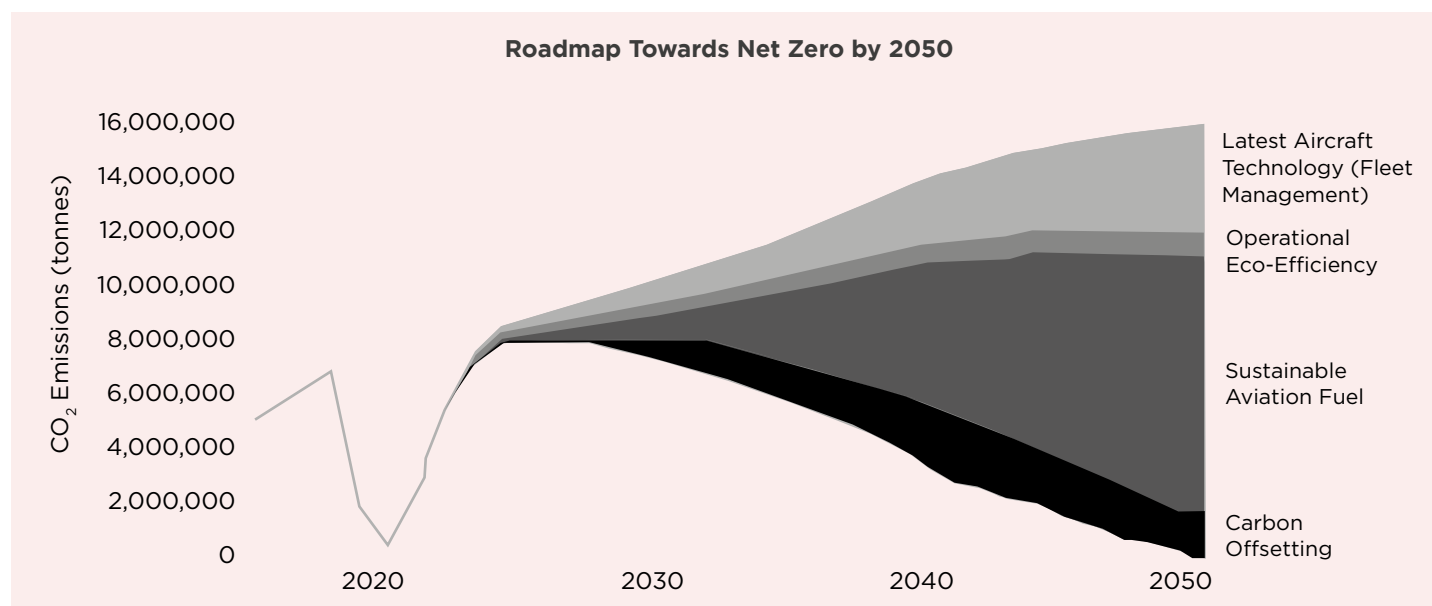
Note: CO_2 emissions for years 2018-2022 are based on actual data. Figures for 2023 onwards are based on AirAsia's projections.

Our Approach Towards Net Zero by 2050	
Operational Eco-Efficiency Strengthen our fuel efficiency programme to continue delivering optimal outcomes to retain our lead as the airline with the lowest carbon intensity in Asia.	**Use of Latest Aircraft Technology** Invest in the Airbus A321neo model for growth and fleet renewal up to 2035. With a 236-seat layout, each A321neo emits 20% less CO_2 per seat compared with an A320 while also producing less nitrogen oxide and noise.
Sustainable Aviation Fuel (SAF) Explore SAF opportunities with fuel suppliers as biofuel production ramps up and becomes available in Asean.	**Adopting Market-based Measures** Purchase carbon credits to close remaining gaps and comply with requirements under the CORSIA developed by ICAO.

In 2022, we made incremental progress in all four areas, although the bulk of our efforts focused on strengthening and expanding our operational eco-efficiency outcomes. By increasing our fuel consumption efficiency, we benefit from cost savings while also reducing our emissions in a way that aids our post-pandemic recovery.

In the following section, we list our key achievements in each of the above mentioned areas.

Environmental (cont'd)

Climate Strategy

Approach 1: Operational Eco-Efficiency

As our main focus, AirAsia's fuel efficiency programme underpins our Scope 1 GHG emissions reduction efforts and represents tangible immediate solutions in our journey to net zero. We maintain some of the lowest carbon intensity measures in the industry through continuous efforts to reduce fuel consumption, both to lower our operational costs and carbon footprint.

In 2022, we undertook two investments to strengthen our fuel efficiency programme. The first was usage of the Honeywell Forge fuel efficiency solution which enables AirAsia to analyse fuel-related data and compute its fuel savings. The system helps in planning the right amount of fuel for every flight, while providing recommendations to improve fuel efficiency performance. Data recorded within the Forge system also helps to track performance of operational eco-efficiency procedures to increase compliance rates.
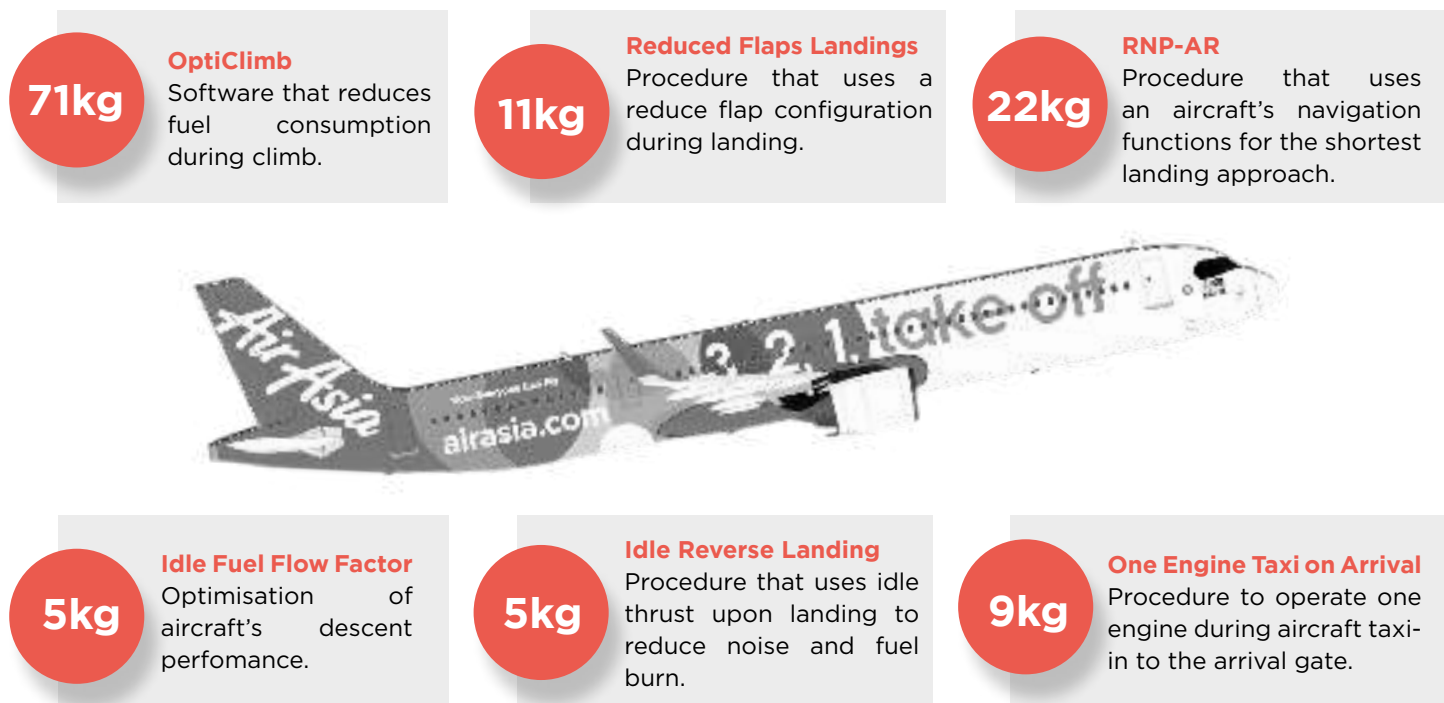
The second investment made was in the installation of an innovative aircraft software modification known as Descent Profile Optimiser (DPO) on A320 aircraft to minimise the amount of time spent at an inefficient level of fuel burn. The DPO is calculated to reduce our emissions by 0.75% per aircraft, equivalent to an average of 101kg of CO_2 per flight. In the first phase of implementation, DPO has been installed in 32 aircraft, to be followed by the rest of the fleet in 2023.

The DPO is the latest in a series of flight procedures that AirAsia has introduced that deliver emissions savings at every phase of flights. Although small individually, in aggregate, these measures are key to keeping AirAsia's cost and carbon intensity low. Throughout 2022, the Fuel Efficiency Team oversaw more than 20 operational eco-efficiency procedures by all pilots, highlights of which are described in the diagram below.

Initiative	Description	Result/Total CO_2 avoided in 2022
SafetyLine OptiClimb	Software that reduces fuel consumption during climb, which is the most fuel-intensive phase of a flight. OptiClimb leverages digital data to accurately determine and analyse an aircraft's aerodynamic characteristics.	✓ 64% compliance on procedure implementation (2021: 63%) CO_2 CO_2 emissions avoided = 20,713 tonnes
Reduced Flaps Landing	Procedure that uses a reduced flap configuration during landing to cut aerodynamic drag and fuel burn.	✓ 98% compliance rate on procedure implementation (2021: 91%) CO_2 CO_2 emissions avoided = 5,011 tonnes
One Engine Taxi on Arrival and Departure	Procedure to operate one engine instead of two during aircraft taxi-into and out of the the arrival and departure gates.	✓ 100% compliance on procedure implementation for One Engine Taxi on Arrival (2021: 83%) ✓ 44% compliance on procedure implementation for One Engine Taxi on Departure CO_2 CO_2 emissions avoided = 9,967 tonnes
Idle Reverse Landing	Procedure that uses idle thrust instead of full reverse engine thrust upon landing to reduce noise and fuel burn.	✓ 92% compliance rate on procedure implementation (2021: 92%) CO_2 CO_2 emissions avoided = 2,503 tonnes
Idle Fuel Flow Factor	Updates to the Flight Management System that enable optimisation of the flight's descent and approach.	✓ 100% implementation on all aircraft CO_2 CO_2 emissions avoided = 2,481 tonnes
Statistical Taxi-out Fuel Planning	Procedure that projects a more accurate flight plan taxi-out fuel by airport and departure hour using historical data instead of a fixed figure.	✓ 100% implementation for all AOCs CO_2 CO_2 emissions avoided = 1,622 tonnes

Other green operating initiatives under the fuel efficiency programme contributed to 12,063 tonnes of CO_2 emissions avoidance in 2022. The diagram below shows our fuel saving initiatives and the average amount of fuel saved per flight for each.

Fuel Saving Initiatives

71kg — **OptiClimb** Software that reduces fuel consumption during climb.

11kg — **Reduced Flaps Landings** Procedure that uses a reduce flap configuration during landing.

22kg — **RNP-AR** Procedure that uses an aircraft's navigation functions for the shortest landing approach.

5kg — **Idle Fuel Flow Factor** Optimisation of aircraft's descent perfomance.

5kg — **Idle Reverse Landing** Procedure that uses idle thrust upon landing to reduce noise and fuel burn.

9kg — **One Engine Taxi on Arrival** Procedure to operate one engine during aircraft taxi-in to the arrival gate.

Note: This indicates the average amount of fuel saved (kg) per flight.

Savings from the Operational Eco-Efficiency Programme

RM112,640
invested in operational eco-efficiency programme

↓

RM81.7 million
fuel cost saved

↓

54,360
tonnes of **CO_2 emissions avoided**

↓

906,000
trees planted
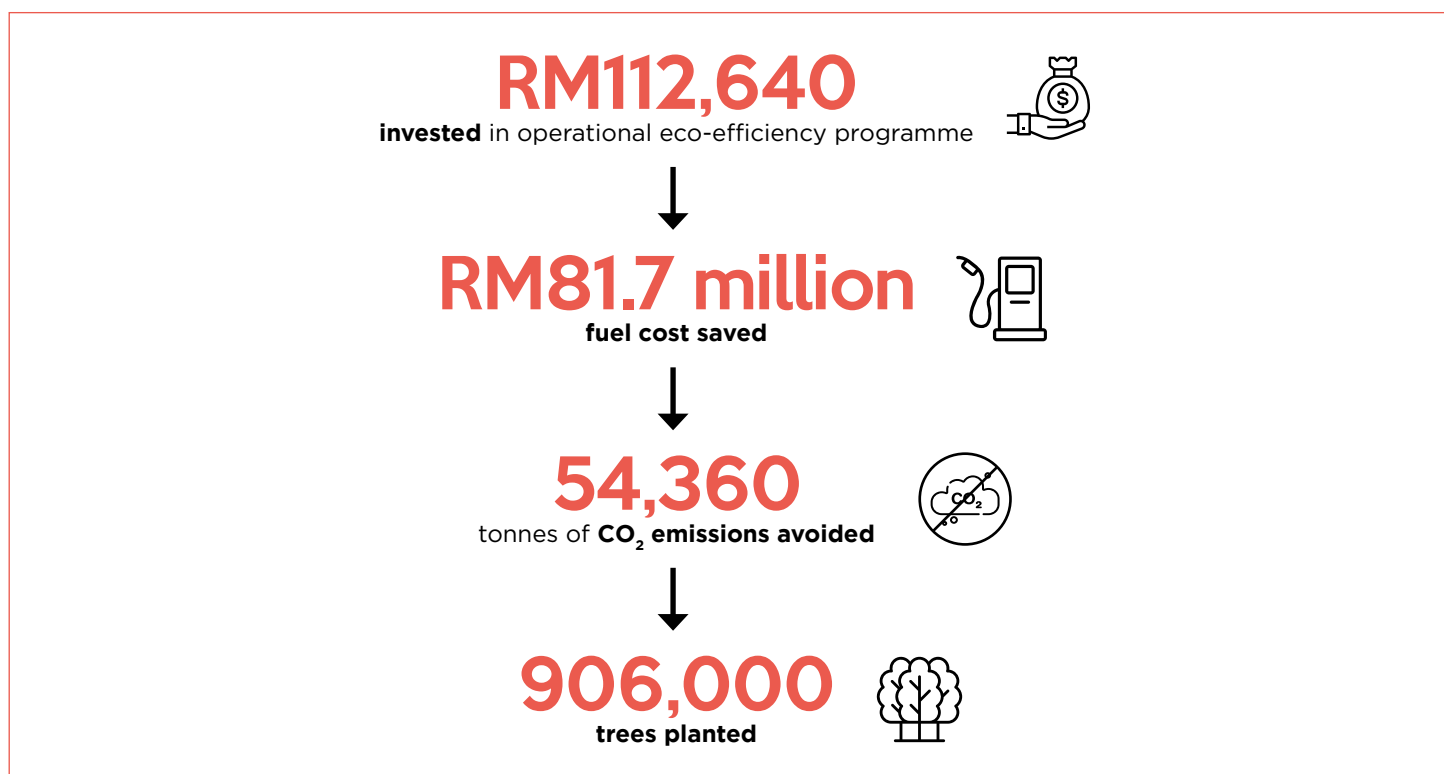
Environmental (cont'd)

Climate Strategy

Aircraft Cabin Innovation with High Performance Mirus Hawk Seats

Since 2018, we have retrofitted five A320 aircraft and line fitted two A321-neo aircraft with Mirus Hawk seats that are made from carbon fibre, aluminium and genuine leather upholstery to produce lighter seats that will support our ongoing commitment to optimise fuel efficiency and reduce carbon emission. The lighter seats help to reduce fuel consumption by more than 70,000 litres and lower CO_2 emissions by 200 tonnes per aircraft per year. We save approximately 1,400 tonnes of CO_2 per year from the seven Mirus Hawk-fitted aircraft in our fleet.

Under our contract with Airbus, all A321neo aircraft orders from 2021 to 2028 will be installed with the Mirus Hawk seats. We look forward to receiving 16 more A321neo aircraft pre-fitted with the high performance seats by 2024.

To improve our ground vehicles' eco-efficiency, we are updating our contracts to include a clause that highly encourages Ground Handling Agents (GHA) to use electric vehicles where possible.

AirAsia is engaging more intently with civil aviation regulators in our key AOC countries on improving airspace efficiencies. While airline initiatives are important, equally impactful are measures to reduce air traffic congestion and to streamline flight paths for more direct approaches to airports.

While AirAsia's Flight Operations Department has always maintained regular engagements with regulators, this year saw increased interactions between government officials with our Sustainability team. Several meetings were held throughout the year, enabling better understanding and coordination between key stakeholders.

Given the cross-sectoral nature of sustainability, these engagements extended beyond members of the aviation community to include representatives from the Ministry of Natural Resources, Environment and Climate Change, as well as MITI.

**Approach 2: Latest Aircraft Technologies**

AirAsia invests in and is in the process of renewing our fleet to young, modern and fuel-efficient aircraft to reduce our Scope 1 GHG emissions and contribute significantly to our net zero goal. Our fleet comprises three models of the Airbus A320 family, which are acknowledged to be the most fuel-efficient narrow-body commercial jet aircraft in the market today; as well as one unit of Airbus A330-300 aircraft to meet our capacity requirements. Comprising 155 aircraft, our fleet remains relatively young at an average age of 10.2 years.

This year, AirAsia operated a fraction of its total fleet size due to pandemic restrictions prolonging into 2022, especially in the first half of the year. AirAsia entered 2022 with a registered fleet of 159 aircraft in January and ended with 155 aircraft in December (table below) with the reduction of three aircraft due to aircraft reallocation and lease retirement. However, our operating network started in January with 46 aircraft, growing to 83 aircraft by December 2022 as we returned more planes into service.

In 2023, we will continue to focus on recovering full fleet activity by negotiating solutions to sector-wide shortages in aircraft parts, engines and maintenance hangar slots. Where feasible, our engineering department prioritised the reactivation of aircraft that are younger in age and have a better fuel efficiency record. This will continue to be our approach throughout 2023 as we reactivate the remainder of the AirAsia fleet across Asean.

Fleet Size

Model	Units	Average age of type (years)	Passenger Capacity
A320-200	123	11.5	180/186
A320neo	29	5	186
A321neo	2	3.1	236
A330-300	1	8.1	377

Fleet by Age

<7 years
33.0%

>13 years
29.0%

7-13 years
38.0%
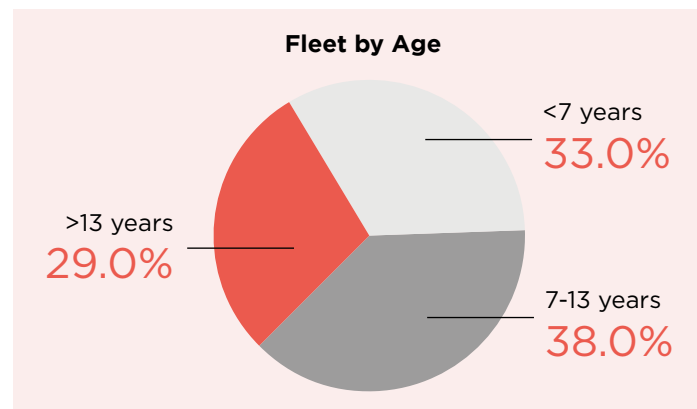
In 2024, our fleet renewal plan will resume with scheduled deliveries of outstanding A321neo order. We currently have four A321neo aircraft in our fleet and in 2024, the Group is planning an increase of 16 additional A321neo aircraft, bringing our total number of this advanced model to 20 aircraft. This will make up around 10% of the total fleet in 2024. Our fleet renewal plan will see the replacement of all existing A320 aircraft with the A321neo model by 2035.

The A321neo aircraft will strengthen AirAsia's competitive advantage by further lowering our per seat cost through the addition of 60 additional seats per aircraft, or addition of 30% more seats compared to the predecessor model A320neo. This will help to increase capacity in congested airports without increasing the number of flights. The switch to an A321neo fleet not only brings economic benefits but also environmental ones as the newer planes operate with greater fuel efficiency and noise reduction. Gains from fuel and emissions efficiencies from 2024 onwards will mainly accrue from latest aircraft technologies as each A321neo emits 24% less CO_2 per seat compared to an A320 and produces less nitrogen oxide and noise.

Furthermore, in the coming years, as more airports introduce measures to penalise carriers operating inefficient aircraft models by applying higher taxes or even not allowing operations with certain aircraft types, AirAsia Group is likely to be minimally impacted as we will already be operating one of the region's youngest and most efficient fleets.

Throughout 2022, we attended three briefings conducted by Airbus on the manufacturer's ongoing programmes to decarbonise aviation. These included updates on latest research and development to develop a commercially viable zero-emission aircraft by 2035, tests to raise the ceiling on SAF utilisation to 100% (Airbus planes are now certified to fly with up to 50% blend of SAF) and new eco-efficiency operating measures.

Spotlight: Welcoming Three New A321 Freighters

Over the next two years, Teleport looks forward to seeing the introduction of three new Airbus A321 Freighters A321F, which is the highest fuel-efficient single-aisle model in its class. Its 27 tonne payload capacity further strengthens Teleport's intra-Asean cargo network with extended connectivity into Asia Pacific countries like China and India. The introduction of these new freighters supports Capital A's goal of net zero emissions.

Approach 3: Sustainable Aviation Fuel

The utilisation of SAF is projected to be *the* key strategic in-sector solution towards AirAsia's net zero roadmap. As the aviation biofuels industry matures, we expect SAF to feature more prominently in our decarbonisation journey in the long term as it can cut the lifecycle GHG emissions of jet fuel by up to 80%. AirAsia's Airbus fleet is certified by aircraft and engine manufacturers to be able to fly with a blend of up to 50% SAF.

Environmental (cont'd)

Climate Strategy

The main obstacles to SAF utilisation remain its high price and non-availability in airports where our AOCs operate. However, we expect this to change in the next two to three years as more companies ramp up biofuel production and supply in the region. AirAsia will leverage Group economies of scale as purchase volume is one of key factors determining SAF pricing.

To gain a broader overview of SAF production and distribution plans in Asean, we participated in multiple engagements with civil aviation authorities, fuel suppliers, aircraft manufacturers and government authorities in the region. These included a three-day ASEAN Workshop on SAF organised by the European Union Aviation Safety Agency (EASA) in January 2022 and a special SAF briefing by Airbus in February 2022.

AirAsia is also a member of the Malaysian Sustainable Aviation Energy Task Force under the purview of the MITI, as well as the Malaysian National Task Force on SAF initiated by CAAM. Through related engagements, AirAsia was able to refine its plans for SAF utilisation by identifying airports where SAF will be first available and forecasting SAF volumes that can be prospectively sourced from each location.

As of January 2023, AirAsia has received its first price quotations to assess the possibility of including SAF into its fuel mix from the second half of the year onwards.

Approach 4: Carbon Offsetting

Market-based measures remain an important approach to manage our residual emissions, pending novel technologies such as zero-emission aircraft. With Malaysia, Indonesia and the Philippines being member states that have voluntarily signed on to participate in CORSIA, we see carbon offsetting as a necessity to close the emissions gap after applying all three in-sector measures mentioned above. Since the scheme came into force, all three AirAsia AOCs are mandatorily required to comply with CORSIA and its progressively ambitious targets to tackle CO_2 emissions from international aviation.

In line with CORSIA requirements, we submitted verified emissions reports to the civil aviation regulatory bodies of the respective AOC countries in April 2022 for their onward submission to the ICAO Central Registry. As global emissions from international aviation remained well below the 2019 CORSIA baseline level, none of our airlines were required to offset our carbon emissions.

An important development that took place in 2022, however, was a decision at the 41st ICAO General Assembly in October to lower the CORSIA baseline to 85% of 2019 level from 2024 onwards. The graph below illustrates the impact of the lowering of the CORSIA baseline from 2024 onwards. This will require offsetting activity, which is expected to spike from 2027 onward as CORSIA becomes mandatory and key economies such as China and India are expected to join the scheme.
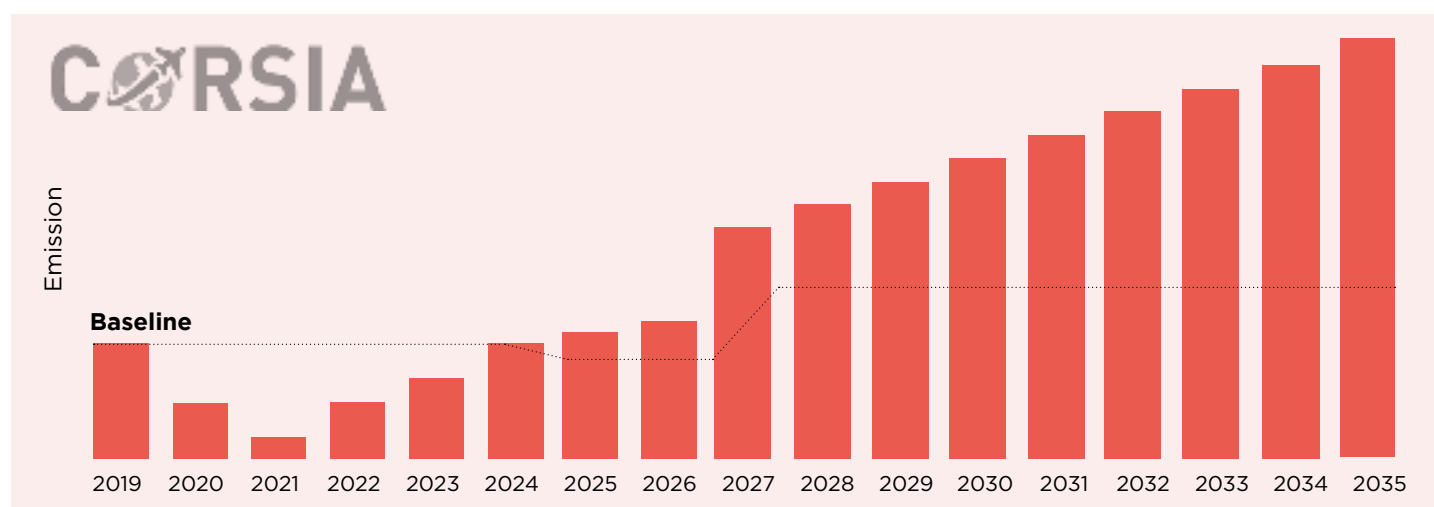
Caption: General trend for CORSIA emissions from 2019 to 2035. This is not based on actual emissions data, merely a depiction of the trend.

In preparation for offsetting requirements starting 2024, we fine-tuned forecasting models to determine our exposure under the new CORSIA baseline, as well as under a more ambitious net zero decarbonisation programme to cut our emissions above CORSIA requirements. We are also in the process of developing options for customers to add an offset fee to their fares, not only for flights but also for delivery and ride-hailing services provided by Capital A companies.

Leading the CORSIA Task Force in Malaysia

Capital A's Chief Sustainability Officer was appointed by CAAM in the fourth quarter of 2022 to lead a national task force on CORSIA. The task force aims to identify gaps in Malaysia's current approach and to provide recommendations for the effective implementation of the carbon reduction scheme. Over a period of six months, the task force will develop an updated Malaysia aviation net zero roadmap, taking into account decarbonisation strategies of all key stakeholders, and determine the potential contribution of the sector to Malaysia's carbon economy.

Though in-sector approaches are highly encouraged for carbon emissions reductions, AirAsia's decarbonisation efforts will be highly dependent on the purchase of carbon offsets until SAF becomes more commercially viable in terms of price and supply. We expect carbon offsets to deliver a high proportion of our emissions reduction at the early stages of our net zero journey before tapering down as in-sector solutions become more accessible.

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

With the exponential intensification of climate change, Capital A acknowledges climate change as one of the most complex risks society and the companies across the globe are facing right now. To demonstrate our commitment towards addressing and managing our climate-related impacts, Capital A became an official supporter of the TCFD in 2022.

TCFD Pillars	Achievement in 2022
Governance Governance on climate-related risks and opportunities	• Maintain Board and senior management oversight through relevant committees • Increase Board awareness through quarterly updates on ESG and climate-related matters (please refer to page 94)
Strategy The actual and potential impacts of climate-related risks and opportunities on our businesses, strategy and financial planning	• Develop Capital A's net zero strategy • Set internal carbon price (please refer to page 128)
Risk Management The processes used to identify, assess and manage climate-related risks	• Include ESG and climate related risk in the Group's framework • Plan to manage climate change as a risk in the Enterprise Risk Management system (please refer to page 104)
Metric and Targets The metrics and targets used to assess and manage relevant climate-related risks and opportunities	• Monitor Scopes 1,2 and 3 • Commit to net zero emissions by 2050 (please refer to page 129)

Environmental (cont'd)

Climate Strategy

Risk timeframe: **S** short term **M** medium term **L** long term

Risk Type		Risk Timeframe	Climate-related Risk Description	Potential Financial Impact	Mitigation Strategy
Transition Risks	Policy and Legal	**S** **M** **L**	Imposition of new climate change regulation such as carbon taxes, emissions quotas or biofuel mandates	Increase in operating costs and fares which could lead to a dampening of travel demand	• Regular engagement with civil aviation authorities and government bodies on climate change and decarbonisation plans for the aviation industry. • Develop net zero by 2050 strategy which outlines our approaches on latest generation aircraft, operational improvements, SAF and carbon offsetting. • Commence discussions with regional fuel suppliers on making SAF available in the region. Our focus will be on maximising efficiency and using SAF in line with mandated requirements. In addition, a purchase commitment by AirAsia will strongly incentivise fuel suppliers to invest and lower the long-term cost of SAF. • Set internal carbon price to forecast our cost for carbon offsetting.
			New sustainability reporting requirements	Increase in reporting costs, including manpower expenses, measuring tools and audit fees	• Leverage existing frameworks and tech tools to meet new data reporting requirements. • Use available internal resources to undertake internal assurance before progressing to external assurance.
	Technology	**L**	New technology developed to deliver low-carbon solutions such as zero emission aircraft may result in asset value loss of existing aircraft and equipment becoming obsolete	New investments needed to upgrade fleet and equipment	• Negotiate aircraft order contracts that allow for upgrades of unfulfilled deliveries • Enhance fleet management strategy to build flexibilities in lease contracts
	Market	**S** **M** **L**	Travellers and businesses respond to climate change by reducing travel demand	Lower demand for air travel will impact revenue	• Conduct brand campaign to communicate the Group's net zero strategy • Implement a carbon offset programme that provides travellers with the option of offsetting their carbon emissions

Risk Type		Risk Timeframe	Climate-related Risk Description	Potential Financial Impact	Mitigation Strategy
Transition Risks (cont'd)	Reputation	**S** **M** **L**	Negative brand impact of being seen as not responding sufficiently to climate crisis	Guests may choose a competitor that they perceive as more sustainable and investors may divest. Financial institutions may also impose a premium on lending	• Invest in carbon reduction initiatives and communicate decarbonisation efforts actively as part of the company's communications strategy
Physical Risks	Acute	**M** **L**	Aircraft becoming inoperable at extreme high or low temperatures	Increase in cost of flight delays and cancellations	• Operate seasonal schedules and expand coverage of weather forecasting services • Undertake pre-emptive cancellations to avoid passengers and aircraft being stranded
		S **M** **L**	Increased frequency and severity of climate events such as typhoons and floods	Cost of asset damage, increase in insurance premiums and revenue loss due to travel disruption	• Maintain robust business continuity plans and dynamic schedule planning at affected hubs
	Chronic	**L**	Longer-term changes in weather patterns that result in rising sea levels rendering some airports inoperable	Higher airport charges at new facilities built to replace at-risk airports. Travel demand will also be impacted if new airports are located far away from city centres.	• Select hub airports that are shielded from extreme weather events • Ensure business continuity plans are effective and up to date • Operate to airports that are adequately served by public transport to minimise potential increase to guests' travel footprint

Environmental (cont'd)

Climate Strategy

The following are examples of specific climate-related opportunities we have identified.

Climate-related Opportunities	Potential Financial Impact	Mitigation Strategy
Administrative efficiency	Digitalisation strategy reduces manual paperwork and cost of paper, printing and storage of documents.	Continue to work with regulators to move towards e-documentation for regulatory records-keeping and submissions.
Resource diversification	Shift to SAF utilisation diversifies fuel supply and reduces exposure to rising energy costs and growing carbon regulation.	Commenced discussions with fuel suppliers to supply SAF at Malaysian airports and/or to develop SAF using locally available feedstock.
Resource efficiency	Reduction of fuel utilisation via improvements in air traffic management and A321neo fleet conversion will further reduce operating costs and ensure AirAsia maintains its commercial advantage as the airline with the lowest cost/ASK and CO_2/ASK in the industry.	Engage in regular consultations with civil aviation authorities to implement new fuel efficiency and emissions reduction measures, including proposing new measures to be added to national State Action Plans on Emissions Reductions.
Products and Services	Attract travellers keen to minimise their carbon footprint and experience sustainable travel activities. We potentially gain from increased market share among responsible travellers and earn ancillary income from the sale of sustainable travel activities.	Implement a voluntary carbon offsetting programme to enable travellers to contribute to their carbon offsetting.
		Work with sustainable travel social enterprises to enhance access to sustainable travel activities.
Markets	Recognise that climate impact prone destinations may also be strong revenue generators in the recovery and rehabilitation phase.	Resume commercial flights to affected destinations as soon as it is safe to do so to support rebuilding programmes.
Resilience	Continue to strengthen our network connectivity in hubs such as klia2 with reduced climate risk.	Invest in climate forecasting tools and services to inform fleet planning and route planning strategies.

In 2022, we advanced our TCFD alignment by computing our internal carbon price. We also recognise the latest scientific assessments as set out by the United Nations Intergovernmental Panel on Climate Change (IPCC) and aim to conduct a climate-related scenario analysis based on the IPCC assessment in 2023.

To stay abreast of climate-related risks, three of Capital A's Board members attended TCFD training in March 2022 organised by the UN Sustainable Stock Exchanges Initiative, International Finance Corporation and Carbon Disclosure Project Worldwide (CDP) with Bursa Malaysia. Our Group Sustainability team also attended a two-day programme hosted by Bursa Malaysia on TCFD training to enhance their knowledge and support more robust disclosures.

GREENHOUSE GAS INVENTORY (GHG) (GRI 302-1, 302-2, 302-3, 302-4, 305-1, 305-2, 305-3, 305-4, 305-5)

For our GHG inventory, we follow the approach and guidance defined in the Greenhouse Gas Protocol. We report only Scope 1 emissions from our airline operations, AirAsia, as the direct emissions from our digital business have been assessed to be immaterial. However, we cover the Capital A Group in its entirety for disclosures of Scope 2 and Scope 3 emissions as these cover emissions from all our offices and entities.

Scope 1 Emissions

AirAsia's Scope 1 emissions are from the jet fuel used for our airline operations. Our performance can be seen below:

Fuel Consumption

- Fuel Consumption (tonnes): 2020: 397,442; 2021: 123,389; 2022: 604,574
- Specific Fuel Consumption (litres/100RPK): 2020: 3.7; 2021: 4; 2022: 3.4

Scope 1 Carbon Emissions and Intensity

- Scope 1 Emissions (tCO$_2$e): 2020: 1,260,476.7; 2021: 391,324.9; 2022: 1,917,390.2
- Carbon Intensity Ratio (gCO$_2$/RPK): 2020: 88.0; 2021: 94.0; 2022: 85.3
- Carbon Intensity Ratio (gCO$_2$/ASK): 2020: 65.7; 2021: 68.1; 2022: 70.5
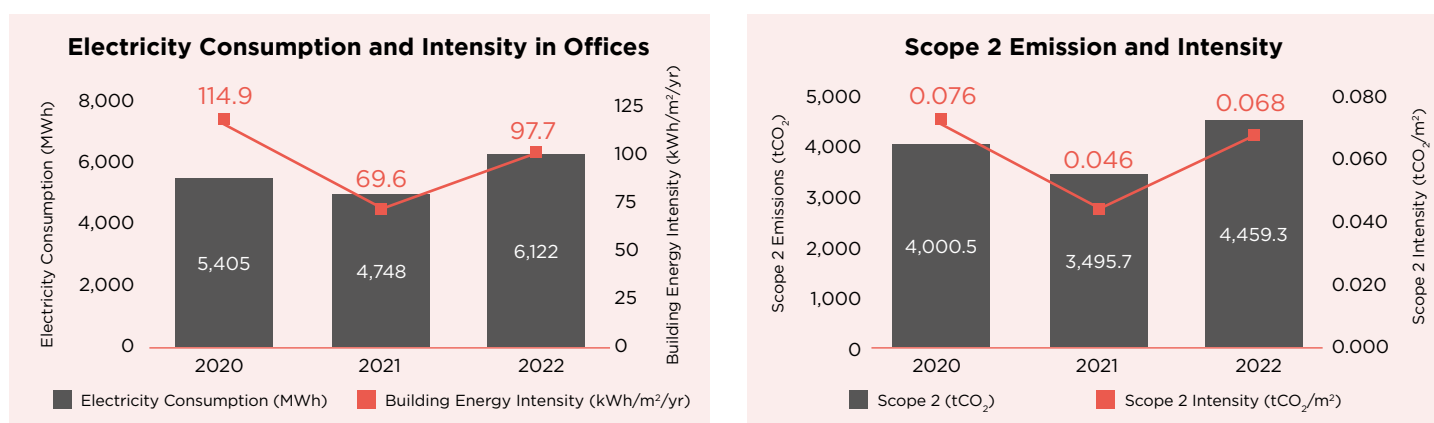
With the gradual recovery and return of air travel and as more countries ease restrictions, AirAsia's total fleet fuel consumption saw a 3.9% increase from 123,389 tonnes in 2021 to 604,574 tonnes in 2022, with a specific fuel consumption of 3.4 litres/100RPK. This trend corresponds with the 3.9% increase in Scope 1 GHG emissions from 391,325.9 tonnes of CO_2 equivalent (tCO$_2$e) in 2021 to 1,917,390.2 tCO$_2$e in 2022. We expect our fuel consumption and Scope 1 emissions to gradually approach pre-Covid levels. However, we are optimistic that SAF will play a key role in reducing our Scope 1 emissions in the future. With operations returning to normal, our ground operations fuel consumption increased by 68.2%, from 520.7 tonnes in 2021 to 875.8 tonnes in 2022.

Our carbon intensity per revenue passenger kilometre (RPK) decreased by 9.3% from 94 gCO$_2$/RPK in 2021 to 85.3 gCO$_2$/RPK in 2022 as a result of increased load factor, while our carbon intensity per available seat kilometre (ASK) increased by 3.5% from 68.1 gCO$_2$/ASK in 2021 to 70.5 gCO$_2$/ASK in 2022 due to increased fleet age. Nevertheless, our carbon intensity remains one of the best in the industry, owing to our robust fuel efficiency programmes.

Scope 2 Emissions

Capital A's Scope 2 disclosures cover emissions associated with energy consumption at all our facilities and offices.

Electricity Consumption and Intensity in Offices

- Electricity Consumption (MWh): 2020: 5,405; 2021: 4,748; 2022: 6,122
- Building Energy Intensity (kWh/m²/yr): 2020: 114.9; 2021: 69.6; 2022: 97.7

Scope 2 Emission and Intensity

- Scope 2 (tCO$_2$): 2020: 4,000.5; 2021: 3,495.7; 2022: 4,459.3
- Scope 2 Intensity (tCO$_2$/m²): 2020: 0.076; 2021: 0.046; 2022: 0.068

With our Allstars returning to offices as the pandemic restrictions ease, total electricity consumption in our offices was 6,122 MWh in 2022, a 28.9% increase from 2021. This has been accompanied by a corresponding increase in energy intensity as well to 97.7 kWh/m²/year in 2022 from 69.6 kWh/m²/year in 2021.

As Scope 2 emissions are from purchased electricity for our buildings and offices, our Scope 2 emissions similarly increased to 4,459.3 tCO$_2$ in 2022, a 27.6% increase from 2021, with a Scope 2 GHG intensity of 0.068 tCO$_2$/m².

Environmental (cont'd)

Climate Strategy

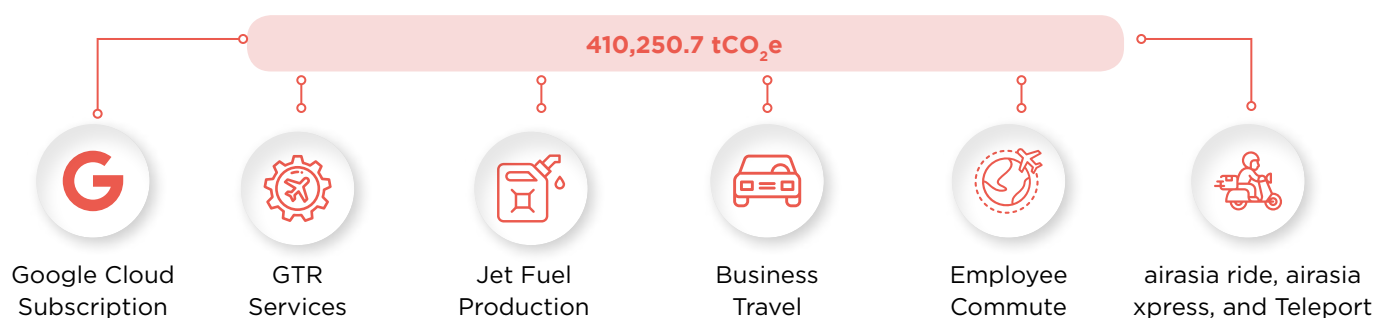In line with the Group's quest for efficiency, our facilities team has put in place several energy efficient initiatives in our offices to reduce energy usage. These include:

Scope 2 Emissions

| scheduling the usage of light by zones | retrofitting all bulbs to LED lighting | switching on of power-intense major equipment such as air-conditioners using a staggered approach | establishing designated areas where Allstars can continue to work after regular working hours when lights and air-conditioning are switched off in most parts of the building |

Our total energy consumption, including fuel purchased for aircraft and electricity purchased for offices, was 8,046,956 MWh in 2022, an almost five-fold increase from 2021 brought on by the exponential increase in office activity with Allstars' return to the workplace. As a Group, we are reviewing and exploring ways in which we can optimise our energy management.
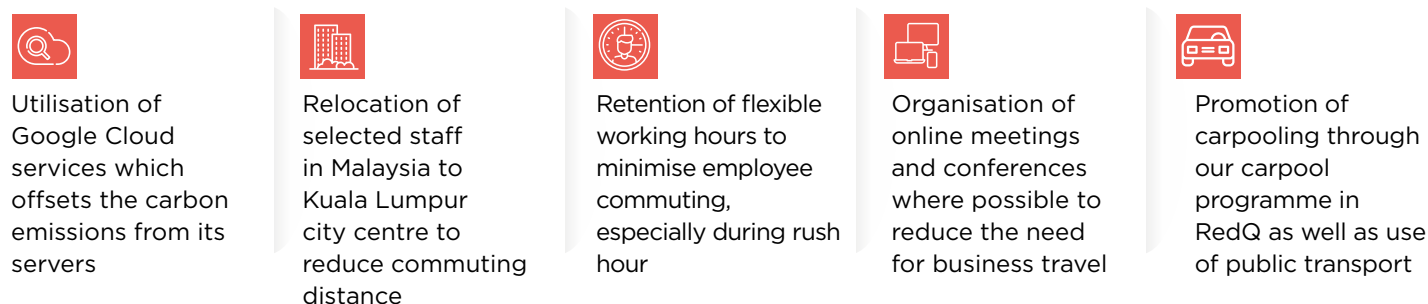
Scope 3 Emissions

As part of industry best practices, Capital A began to track our Scope 3 emissions from 2022 and has identified five of the 15 categories highlighted in the GHG Protocol that are applicable to our business, including:

410,250.7 tCO$_2$e

| Google Cloud Subscription | GTR Services | Jet Fuel Production | Business Travel | Employee Commute | airasia ride, airasia xpress, and Teleport |

Note:
1. Only business travel on non-AirAsia flights and hotel stays are considered as emissions from AirAsia flights are considered under our Scope 1 emissions.
2. The Technical Guidance for Calculating Scope 3 Emissions published by GHG Protocol is used to calculate our Scope 3 emissions, while the emission factors are sourced from UK Government GHG Conversion Factors for Company Reporting.

In 2022, multiple initiatives were undertaken to minimise our Scope 3 emissions, including:

| Utilisation of Google Cloud services which offsets the carbon emissions from its servers | Relocation of selected staff in Malaysia to Kuala Lumpur city centre to reduce commuting distance | Retention of flexible working hours to minimise employee commuting, especially during rush hour | Organisation of online meetings and conferences where possible to reduce the need for business travel | Promotion of carpooling through our carpool programme in RedQ as well as use of public transport |

The identification of Scope 3 emissions allowed us to understand our carbon footprint beyond our Scope 1 and 2 emissions, and we are actively identifying opportunities to reduce our emissions beyond our value chain. As more than 95% of our Scope 3 emissions originate from the extraction and refining of the jet fuel (well-to-tank emissions) for our flights, utilisation of SAF will be the dominant method to reduce our Scope 3 emissions. In addition, we are developing a carbon offsetting programme that will allow guests to offset their carbon footprint from mobility and delivery services. We hope to launch this programme in 2023 to deliver a more sustainable and purposeful service to guests.

We will continue to work closely with our vendors and business partners to track and minimise our Scope 3 emissions, as well as to expand the coverage scope of our Scope 3 emissions monitoring as applicable.

Other Greenhouse Gas Emissions (GRI 305-7)

We recognise that the combustion of jet fuel releases GHGs other than CO_2 into the atmosphere, specifically nitrogen oxides (NOx), sulphur oxides (SOx), carbon monoxide (CO), and volatile organic compounds that can negatively impact the quality of air.

Under Annex 16, Volume III of its international standards on environmental protection, ICAO has set acceptable levels of emissions from aircraft engines for the various other GHGs. In compliance with these standards, we work hard to expand our fleet with younger aircraft that use the latest technologies. As of 2022, all of AirAsia's aircraft engines meet with the most stringent ICAO CAEP/8 NOx emissions standards. As we continue to phase out older aircraft in exchange for new Airbus A321neo models, we aim for 100% compliance with ICAO CAEP/8 NOx standards.

Indicators	2020	2021	2022
NOx emissions (tonnes)[1]	725	261	1,191
NOx emissions intensity (gNOx/RPK)[1]	0.0508	0.0629	0.0544
SOx emissions (tonnes)[2]	79	29	127
Volatile Organic Compounds (VOC) emissions (kg)[2]	274,492	98,752	438,746

Notes:
[1] NOx emissions and compliance data are obtained from the ICAO Emissions Bank issue 28C dated 20 July 2021. The NOx emissions value per landing and takeoff (LTO) cycle is based on the weighted average of AirAsia's fleet composition as of 2022.
[2] According to the US EPA, SO_2 represents the highest composition of SOx emissions, hence SO2 is considered as SOx for the purpose of calculations. SO_2 and VOC emissions data are sourced from US EPA's Generic Aircraft Type Emission Factors table.

NOISE MANAGEMENT

We recognise that noise from our aircraft engines could affect the physical and mental health of the surrounding communities, and that it may cause negative impacts on the natural ecosystem. Accordingly, all AirAsia aircraft comply with ICAO Annex 16 Chapter 4 noise standards and CAAM's directive on aircraft noise, and we will continue to meet or exceed ICAO noise certification standards.

BIODIVERSITY (GRI 304-3)

We believe in conserving the natural environment and biodiversity of the countries where we operate for the benefit of the ecosystem and local communities. As a reputable leader in the region, we are always exploring opportunities to do our part to minimise our ecological impact.

Through our philanthropic arm, AirAsia Foundation, we have supported numerous social enterprises across the region whose goals include biodiversity conservation. The table below summarises their ongoing contributions.