

ICAO EUR/NAT Environment Workshop Hosted by the State Civil Aviation Agency of the Republic of Azerbaijan

Sustainability update on Alat Airport



ICAO



SUSTAINABLE DEVELOPMENT GOALS



EMISSIONS CO₂

- Energy generation, industrial manufacturing processes, domestic energy consumption and transport contribute the most to carbon emissions.
- **Aviation: 2-3% of global man-made CO₂ emissions.**
- In the European Union, greenhouse gas emissions from aviation increased by 87% between 1990 and 2006.
- Over the past 40 years fuel efficiency improved by 70%; 2001 – 2008 16%.
- **Airport activities up to 5% of total aviation emissions.**
- CO₂ is emitted by following sources:
 - - aircrafts through the burning of fuels such as Jet-A or Avgas
 - - aircraft ground movements
 - - ground airport vehicles (airside)
 - - transport used by passengers and staff to access airports
 - - through emissions generated by the production of energy used in airport buildings
 - - the construction of airport infrastructure
- 2012: Airlines must pay for their carbon emissions for flights into and out of EU airports (ETS)

- **Energy Efficient Architecture**
 - investing in energy efficient technology, optimising energy which they currently use
- **Alternative Power Sources**
 - airports across the World invest in renewable energy facilities such as biomass, geo-thermal power, solar power and even wind turbines
- **CDM (Collaborative Decision Making) and CEM (Collaborative Environmental Management)**
 - Shorter Taxi-ing times - Part of CDM – ACI Europe are working on implementation on 40 airports (estimated result savings over 475.000 tones of CO₂)
- **Ground Handling Vehicles**
 - GH companies convert their vehicle fleets to electric, hybrid, hydrogen or LPG technology
(e.g. High-speed Tow Tractors: transport aircraft between terminals and maintenance hangars, saving more than 15 million liters of jet fuel and reducing CO₂ emissions by 40 million kg annually).
- **Airport Public Access**
 - States/Counties/Cities/Airports invest in better public transport links to an airport (encouraged use of bus, train or metro).

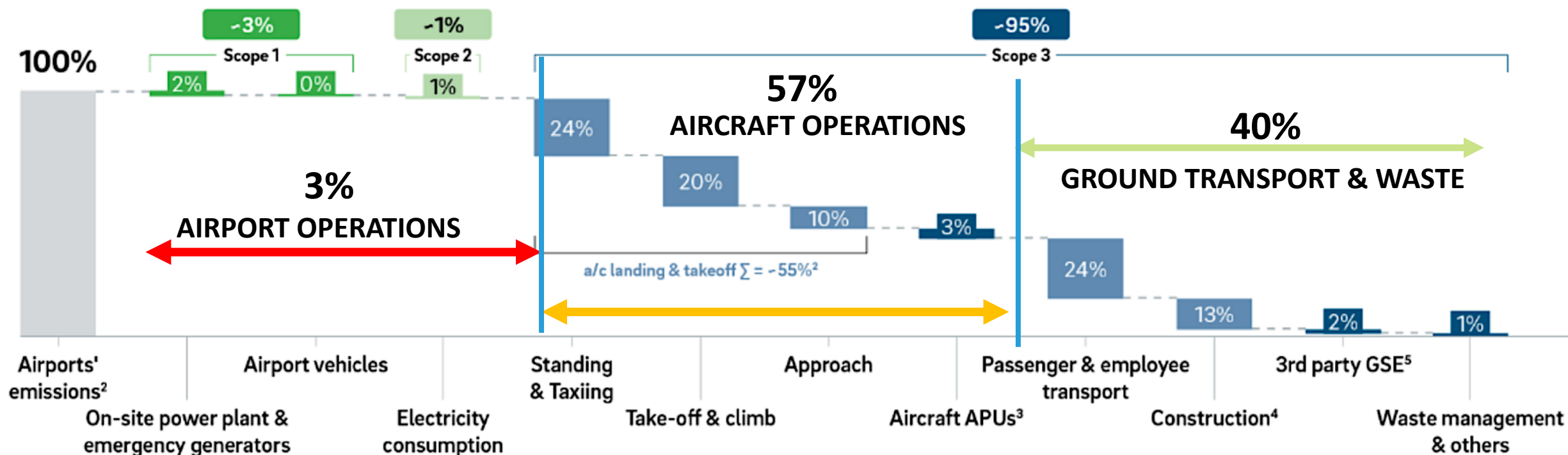


EMISSION SOURCES FROM AIRPORT ACTIVITY



SOURCE:ROLAND BERGER

Airport emissions by source for large, advanced airports¹



Efficient reduction
only in collaboration of many Stakeholders

MANAGEMENT COMMITMENTS TO OPERATE A GREEN ALAT AIRPORT

1. Carbon Emission Reduction

2. Energy Efficiency & Renewable Energy

3. Sustainable Waste Management

4. Water Conservation & Management

5. Green Infrastructure & Biodiversity

6. Sustainable Ground Transportation

7. Noise Pollution Mitigation

8. Stakeholder Engagement & Green

Partnerships

9. Local Employment, Skills, and Training

10. Continuous Improvement & Transparency



AIRPORT CATEGORY 4F

7

Opening end of 2026/beginning of 2027

- Greenfield airport, 60km SW from Baku
- Runway 4000X60m
- 12 parking stands for category F aircrafts
- Business aviation terminal
- FBO and MRO
- Cargo terminal 30.000m²
- Cargo village in Custom Free Zone
- Affordable JET A-1 price
- Competitive airport and handling prices



OUR SUSTAINABILITY VISION



“Alat Airport aspires to be a sustainable and regenerative airport by driving innovation in its design, construction, operation and maintenance.

As a new cargo and passenger hub, we recognise the opportunity to implement strategies that respect the environment and address the climate emergency, whilst we provide a world-class experience for our customers, staff and prosperity across the world.”

AGENDA

- Management commitments to operate a green Alat Airport
- Process for developing our vision, framework and strategy
- Identifying project drivers
- Our sustainability vision
- Our strategy
- Identifying the key outcomes
- Implementation and the plans being developed
- Examples of carbon management and energy optimisation initiatives
- Governance
- Examples of strategy alignment with ICAO documentation
- Next steps

Letter of Intent
on Collaboration Between
the Silk Way Alat Free Economic Zone Company (SW AFEZCO)
and
the International Civil Aviation Organization (ICAO)

Whereas the International Civil Aviation Organization (ICAO) and the Silk Way Alat Free Economic Zone Company (SW AFEZCO) share a mutual commitment to promoting sustainable aviation and reducing the environmental impact of the aviation sector;

Whereas SW AFEZCO wishes to confirm its intent to obtain capacity building and implementation support from ICAO to establish a certified Green Airport and Cargo Village in the Alat Free Economic Zone in Azerbaijan, to advance the country's environmental goals and to support ICAO's vision of sustainable aviation;

Whereas this initiative of SW AFEZCO is intended to set a benchmark for environmentally sustainable airport operations in Azerbaijan, aligned with ICAO's environmental Standards and Recommended Practices.

1. ICAO and SW AFEZCO (hereinafter referred to as the Participants) state their intentions for collaboration as follows:

To establish a collaborative framework for the provision of capacity building and implementation support by ICAO to SW AFEZCO for the planning, development and certification of a Green Airport and Cargo Village in the Alat Free Economic Zone.

2. Each specific activity undertaken pursuant to this Letter of Intent shall be carried out by means of a formal instrument mutually agreed upon by the Participants.

IN WITNESS WHEREOF the undersigned, being duly authorized representatives of the Parties, have signed this 13 day of November 2024.

Services Agreement

Signing Page

EXECUTED by the parties as an agreement.

Signed for SW AFEZCO:

Signature of Managing Director

Jaouad Dbila

Name of Managing Director

05 February 2025

Date of Signature

Signed for Grimshaw International Limited

Signature of Director

ALAT AIRPORT AUTHORITY

GREEN AIRPORT COMMITMENT

Management commitments to operate a green Alat Airport

At Alat Airport, we recognize our responsibility to minimize environmental impact and promote sustainable aviation. Our management is committed to integrating practices across all operations to achieve a green airport that balances economic growth with environmental stewardship. All our operations have a role in delivering our commitments. These commitments support our sustainability strategy and policies in realising our vision of a green airport.

Our key commitments:

1. Carbon Emission Reduction

- Implement measures to reduce greenhouse gas (GHG) emissions from airport operations.
- Promote the use of renewable energy (solar, wind, etc.) at airport facilities.
- Encourage airlines to adopt Sustainable Aviation Technologies.

2. Energy Efficiency

01

Policy establishment

02

Planning phase

03

Construction phase

04

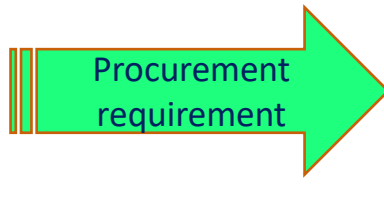
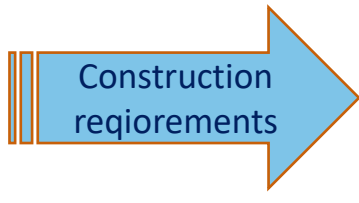
Equipment and machinery procurement

05

Operational standards


06

Promotion of Eco-friendly behavior



OUR STRATEGY:

CONNECTING THE WORLD, CONSERVING THE NATURE



ALAT AIRPORT AUTHORITY

Connecting the World, Conserving the Nature
Alat Airport

Alat Airport | Sustainability Strategy and Management Plan

Foreword

"We are proud to publish our sustainability strategy that supports our commitment for Alat Airport to be a 'green airport'. This strategy is long-term. It recognizes the socio, economic as well as environmental outcomes that we can influence, understanding some outcomes will take time to realize. The airport represents a significant milestone in the country's history, signifying a shift towards new opportunities that will effectively address the increasing local and global demand for freight and passenger transport. This initiative not only bolsters our standing within the Middle Corridor but also opens up new avenues for growth, offering promising prospects for our business, as well as for our valued partners and investors. This opportunity comes with responsibilities, and that is why we have set an ambitious vision for our airport's sustainability commitments and ask that our partners, suppliers, workforce and anyone involved in our operations help us in its delivery."

Zaur Akhundov,
President of Silk Way Group and Silk Way Alat Free Economic Zone Company

3

Alat Airport | Sustainability Strategy and Management Plan

Our sustainability vision

"Alat Airport aspires to be a sustainable and regenerative airport by driving innovation in its design, construction, operation and maintenance. As a new cargo and passenger hub, we recognize the opportunity to implement strategies that respect the environment and address the climate emergency, whilst we provide a world-class experience for our customers, staff and prosperity across the wider region."

Our vision deliberately includes the adjective *regenerative* as our long-term outcomes seeks to go beyond sustainability and deliver positive outcomes. Examples of positive outcomes include biodiversity improvements, generating more energy than the airport uses and becoming a net exporter.

Sustainability key outcomes

The following key outcomes have been established to support the successful delivery of the relevant themes in our overarching sustainability vision.

Sustainability themes	Key Outcomes
Health & wellness	Create a place for people and communities to thrive in harmony with nature.
Nature	Promote responsible and circular resource flows.
Prosperity	Reduce emissions from airport operations to benefit the well-being of people and biodiversity, and mitigate climate change.
Resource use	Integrate measures to mitigate impacts of climate change
Climate emergency	
Adaptation & resilience	

Figure 3: The relationship between sustainability themes and the key outcomes

10

Alat Airport | Sustainability Strategy

Sustainable development framework

Fulfillment of Alat Airport's vision and key outcomes will be governed by a program wide sustainable development framework (hereafter referred to as the framework). The framework (see Table 1) outlines quantifiable targets with key performance indicators to report progress in the delivery of the key outcomes.

The technical requirements for measuring progress against specific targets and objectives will be outlined in the strategic implementation plans (*Implementation section*) and requirements for reporting against and revising the framework are outlined in the sustainability governance protocols (*Governance section*).

Table 1: Sustainable development framework: outcomes, material issues, objectives, and targets

Key outcomes	Material issues	Objectives	Targets and indicators	
			Net zero [Neutral impacts]	Net positive [Regenerative impacts]
[1] Create a place for people and communities to thrive in harmony with nature.	Human health & wellness Biodiversity	[1.1] Create environments that promote positive human health & wellness. [1.2] Restore and manage local biodiversity.	<ul style="list-style-type: none"> Establish a staff and passengers health and wellness strategy by end of 2028* [1.1] Develop and implement a noise and air pollution mitigation strategy by end of 2030* [1.1] Commence the completion of airport noise contours in accordance with the guidance set out in ICAO Doc 9829 [1.1] Design process to involve public consultations [1.1] Set baselines using HWI index for staff and customer satisfaction [1.1] 	<ul style="list-style-type: none"> Design and operational performance of buildings and infrastructure to both meet health and wellness and environmental certification scheme requirements such as WELL and LEED [1.1] Annual HWI index scores to match or exceed baseline [1.1] Deliver a biodiversity net gain by 2030* [1.2] 50% reduction of external ecosystem impacts from 2020* [1.2] 100% reduction of external ecosystem impacts from 2020* [1.2]
	Transport & accessibility	[1.3] All surface access to and from the airport via public EV modes & active modes across site.	<ul style="list-style-type: none"> Establish a biodiversity action plan for the airport that considers wider support to the region by end of 2028* [1.2] Establish an environmental management strategy by end of 2029* [1.2] Quantify external ecosystem impacts by 2028* [1.2] 100% of external ecosystem impacts to be offset from 2043* [1.2] Establish an on-site accessibility and mobility strategy by end of 2029* [1.3] 100% of staff commuting via public modes from 2030* [1.3] 50% of customer surface access via public modes from 2030* [1.3] 50% of all EV charging demand met on-site from 2027* [1.3] 100% compliance with the procurement policy by end of 2025* [1.4] 	<ul style="list-style-type: none"> 100% of staff travel via EV based public modes from 2040* [1.3] 100% of customer travel via EV based public modes from 2040* [1.3] 100% of all EV charging demand met on-site from 2030* [1.3] All construction activities and the airport's operations to support local employment and training opportunities [1.4] Airport development phases have a net-positive impact on the local economy from 2030* [1.4] 100% of operational activities have a net-positive impact on the local economy from 2030* [1.4]

11

Found within the Alat Airport sustainability strategy and management plan

PLANNING AND CONSTRUCTION PHASE

- Sustainable Design
- Green Building Materials
- Energy Efficiency
- Water Conservation
- Biodiversity Protection
- Pollution Control
- Sustainable Transportation during construction
- Certification Standards BREEAM

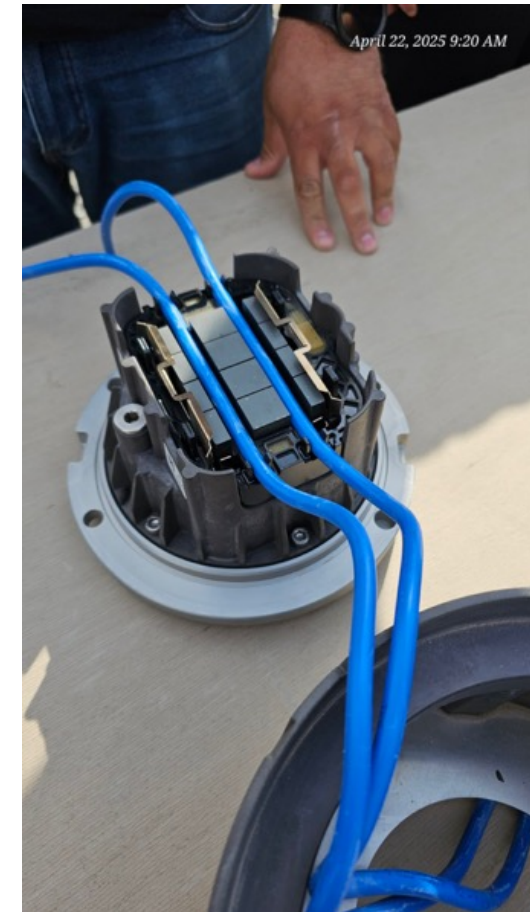
Designing
green building
according to
ECO standards

Green
construction

FACILITIES CONSTRUCTION

- Modern
- Energy efficient
- Integration of low-carbon infrastructure
- Well being

Advanced airfield lighting energy saving technology



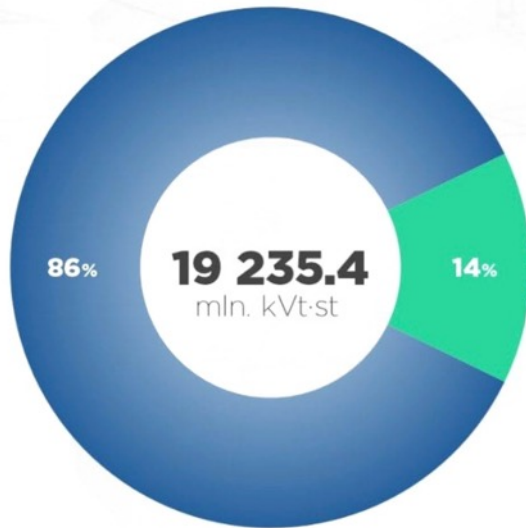
EQUIPMENT AND MACHINERY PROCUREMENT

Equipment and
machinery
procurement

- Energy Efficiency
- Low Emissions-powered by electricity
- Sustainable Materials
- Lifecycle Impact and Recyclability
- Renewable Energy Compatibility
- Noise Reduction
- Water Efficiency
- Compliance with environmental Standards
- Supplier Sustainability

GROUND HANDLING EQUIPMENT AND OTHER MACHINERY

RESPUBLİKA ÜZRƏ ÜMUMİ ELEKTRİK ENERJİSİ İSTEHSALI



SES
2 138.4
mln. kWh



KES
37.9
mln. kWh



GES
424.3
mln. kWh



BMTZ
171.2
mln. kWh

CH120 Mobile Power Bank LFP Battery

This mobile power bank model is the first of its kind in the world, powered by LFP batteries and ready as a mobile charging solution for all electrically powered GSE, providing a convenient charging option.

 Automatic Fire Suppression

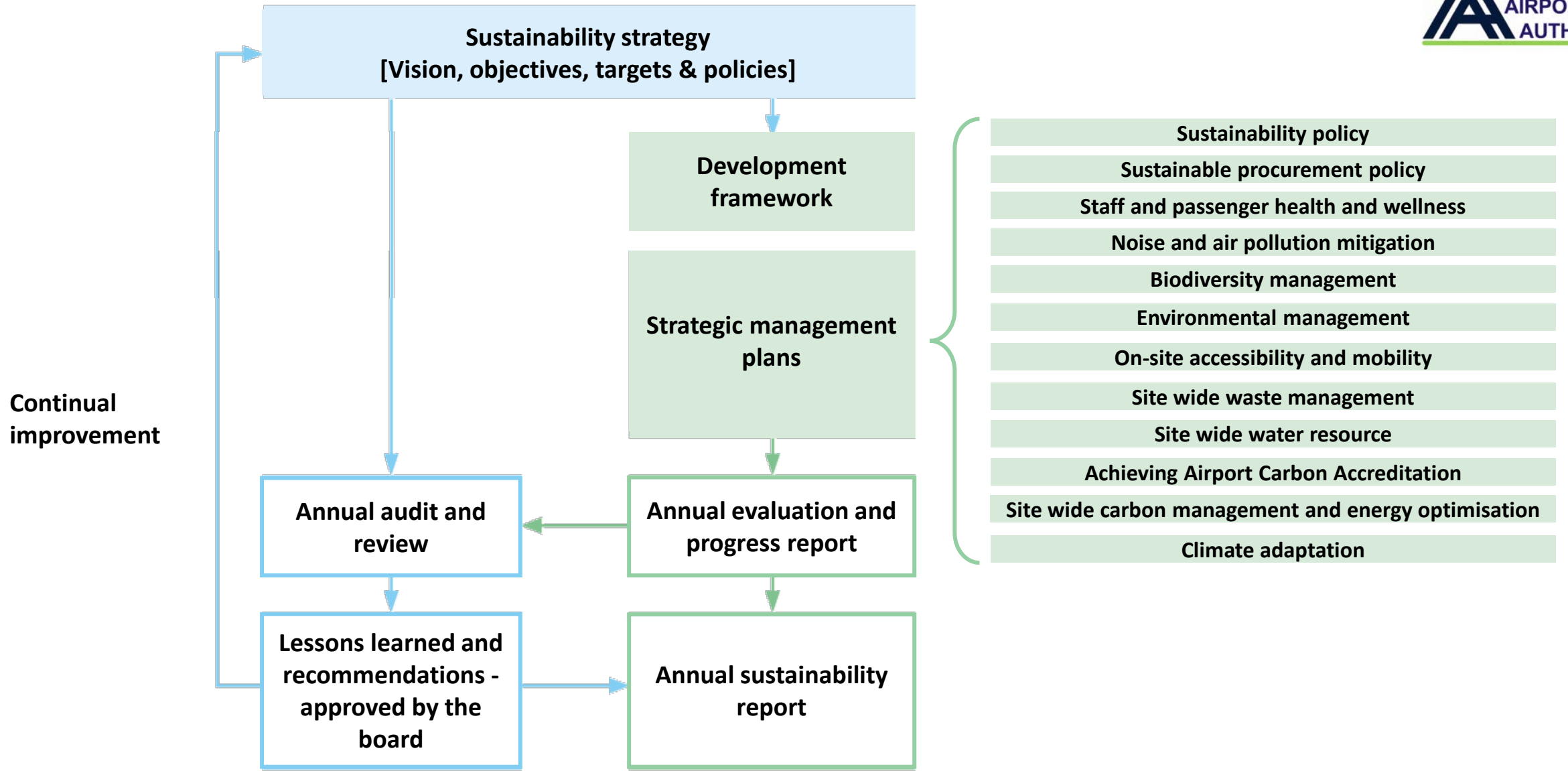


OPERATIONS

Operational
standards

- Energy Management
- Environmental Management
- Waste Management
- Water Conservation
- Noise Management
- Wild life management
- Biodiversity Protection
- Sustainable Transportation
- Stakeholder Engagement

GOVERNANCE



IMPLEMENTATION PLANS

Key outcomes

Create a place for people and communities to thrive in harmony with nature.

Promote responsible and circular resource flows.

Reduce emissions from airport operations to benefit the well-being of people and biodiversity and mitigate climate change.

Integrate measures to mitigate impacts of climate change

Implementation plans

Staff and passenger health and wellness

Noise and air pollution mitigation

Biodiversity management

Environmental management

On-site accessibility and mobility

Site wide waste management

Site wide water resource

Sustainable procurement policy

Achieving Airport Carbon Accreditation*
Site wide carbon management and energy optimisation

Climate adaptation

An outline structure has been drafted for all of the plans listed above. These will require further development.

*This plan has been drafted in full.

EXAMPLES OF CARBON MANAGEMENT AND ENERGY TRANSITION

Supporting key outcome 3: Reduce emissions from airport operations to benefit the well-being of people and biodiversity and mitigate climate change.

- **ENERGY:**

Local renewable energy production by **Masdar 230 Mwac solar power plant**

- **FUEL:**

Transition from **TS1 to JET A-1 and SAF** as per Memorandum of Understanding with **SOCAR** (In accordance with the [ReFuel EU strategy](#))

- **FLEET**

Replacement of four engine **Boeing 747** with **new twin engines** resulting in lower fuel consumption and carbon emissions.



MASDAR

Go Low Carbon EN

WHO WE ARE WHAT WE DO OUR IMPACT NEWS INVESTORS CAREERS CONTACT

Garadagh (Area 60) Solar Photovoltaic Power Plant

Home > What We Do > Our Projects > Garadagh (Area 60) Solar Photovoltaic Power Plant

Overview

In January 2020, Masdar signed an implementation agreement to develop a utility-scale solar photovoltaic (PV) project in the Republic of Azerbaijan. The 230-megawatt (MWac) Garadagh (Area 60) Solar PV Plant is the country's first foreign investment-based independent utility scale solar project structured as a public-private partnership.

Masdar signed the Investment Agreement with the Government of the Republic of Azerbaijan, and Power Purchase Agreement and Transmission Connection Agreement with state power company Azerenerji OJSC in April 2021.

The project entailed developing, financing, constructing, and operating the 230MWac PV plant, located nine kilometers northwest of the Alat settlement in the Republic of Azerbaijan. The plant is started commercial operation in October 2023.

Quick Facts

- Will power approximately 110,000 homes
- 230MWac capacity solar PV plant
- Will reduce emissions by 200,000 tonnes per annum

Downloads

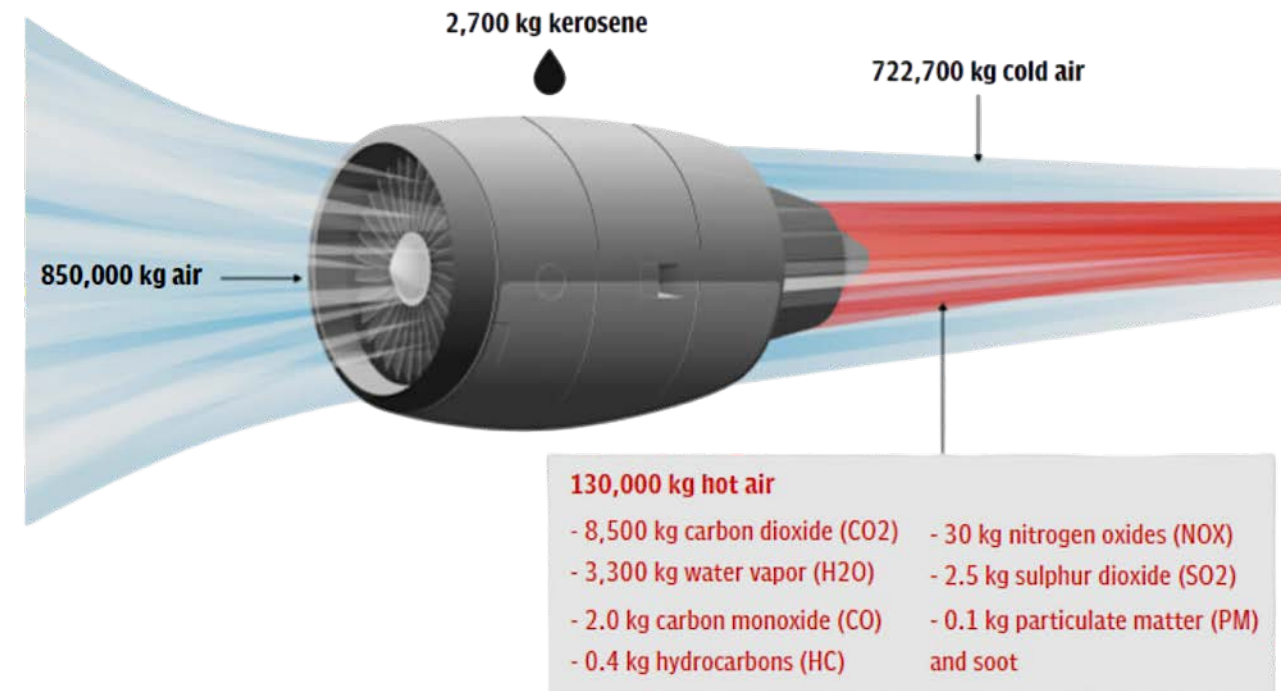
STRATEGIC PARTNERSHIP WITH SOCAR

EU climate goal
FIT to 55
for 2030 – minus 55%
net greenhouse gas

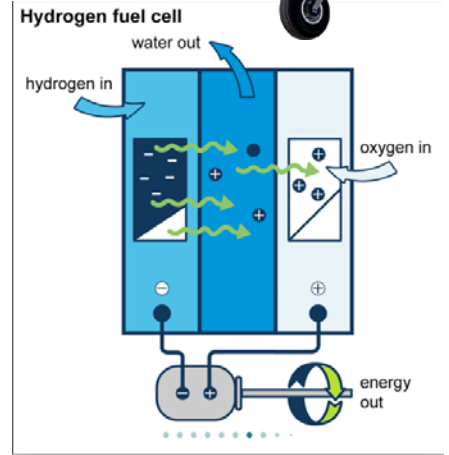
- SOCAR will ensure the delivery of JET A1 standard fuel from its distilleries
- Fuel plan uplift yearly 300.000t Silkway and 100.000t other airlines
- SAF guidelines for the EU called "Refuel EU" will be followed, which foresees the blending of SAF fuel with fossil aviation fuels in the following ratios:
 - By 2030 6% SAF
 - By 2040 34% SAF
 - By 2050 70% SAF

1 hour flight, two engines 150 seats
2,7 t kerosene + 850t air

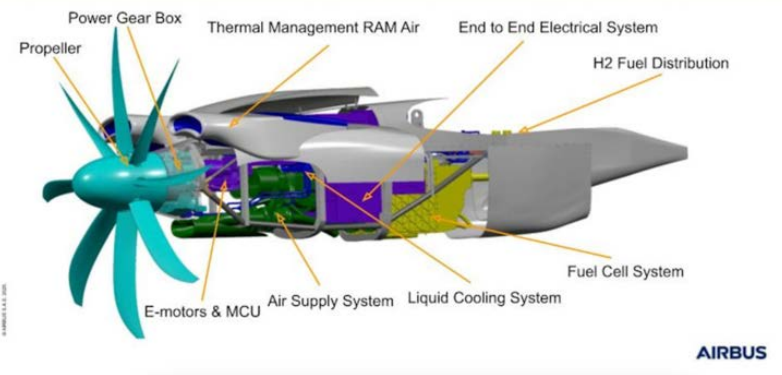
130 t Hot air
8,5 t CO₂
3,3 t H₂O



PREPARATION FOR H₂ FUEL FOR AIRCRAFTS



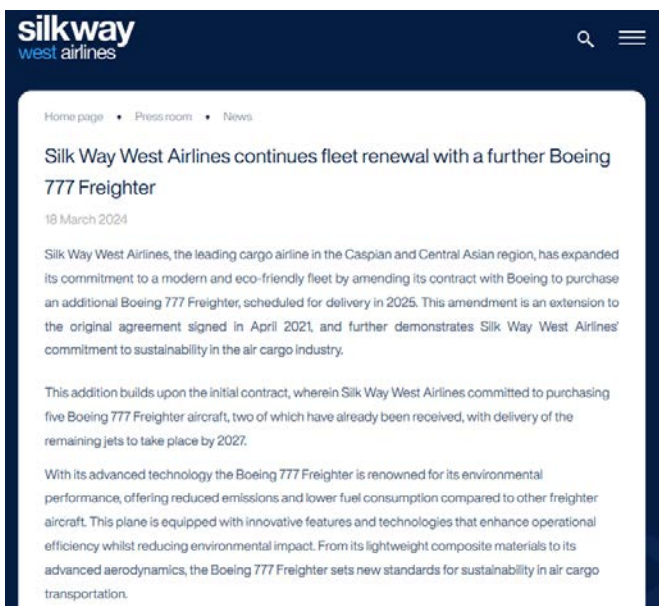
ZEROe Fuel Cell Engine



EXAMPLES OF CARBON MANAGEMENT AND ENERGY TRANSITION

Supporting key outcome 3: Reduce emissions from airport operations to benefit the well-being of people and biodiversity and mitigate climate change.

- Silk way fleet transition



silkway
west airlines

Home page • Press room • News

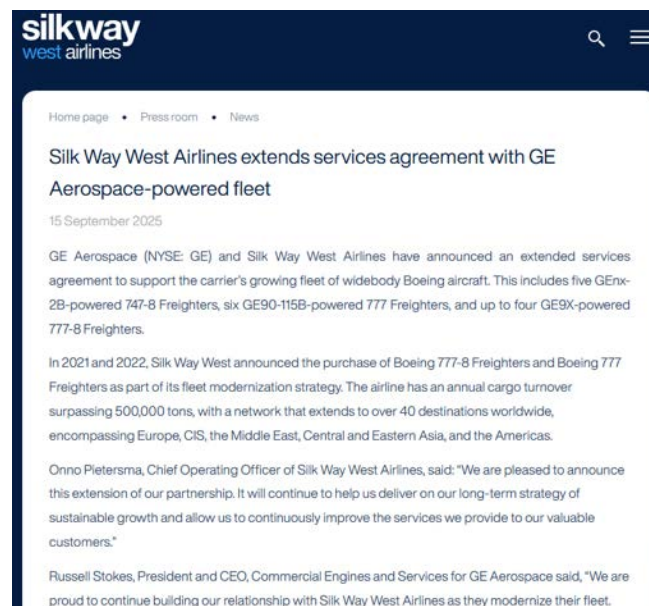
Silk Way West Airlines continues fleet renewal with a further Boeing 777 Freighter

18 March 2024

Silk Way West Airlines, the leading cargo airline in the Caspian and Central Asian region, has expanded its commitment to a modern and eco-friendly fleet by amending its contract with Boeing to purchase an additional Boeing 777 Freighter, scheduled for delivery in 2025. This amendment is an extension to the original agreement signed in April 2021, and further demonstrates Silk Way West Airlines' commitment to sustainability in the air cargo industry.

This addition builds upon the initial contract, wherein Silk Way West Airlines committed to purchasing five Boeing 777 Freighter aircraft, two of which have already been received, with delivery of the remaining jets to take place by 2027.

With its advanced technology the Boeing 777 Freighter is renowned for its environmental performance, offering reduced emissions and lower fuel consumption compared to other freighter aircraft. This plane is equipped with innovative features and technologies that enhance operational efficiency whilst reducing environmental impact. From its lightweight composite materials to its advanced aerodynamics, the Boeing 777 Freighter sets new standards for sustainability in air cargo transportation.



silkway
west airlines

Home page • Press room • News

Silk Way West Airlines extends services agreement with GE Aerospace-powered fleet

15 September 2025

GE Aerospace (NYSE: GE) and Silk Way West Airlines have announced an extended services agreement to support the carrier's growing fleet of widebody Boeing aircraft. This includes five GE9x-powered 747-8 Freighters, six GE90-115B-powered 777 Freighters, and up to four GE9X-powered 777-8 Freighters.

In 2021 and 2022, Silk Way West announced the purchase of Boeing 777-8 Freighters and Boeing 777 Freighters as part of its fleet modernization strategy. The airline has an annual cargo turnover surpassing 500,000 tons, with a network that extends to over 40 destinations worldwide, encompassing Europe, CIS, the Middle East, Central and Eastern Asia, and the Americas.

Orno Pietersma, Chief Operating Officer of Silk Way West Airlines, said: "We are pleased to announce this extension of our partnership. It will continue to help us deliver on our long-term strategy of sustainable growth and allow us to continuously improve the services we provide to our valuable customers."

Russell Stokes, President and CEO, Commercial Engines and Services for GE Aerospace said, "We are proud to continue building our relationship with Silk Way West Airlines as they modernize their fleet."

DUBAI AIRSHOW 2025

Airbus secures third A350F order in November with Silk Way West Airlines' deal

Silk Way West Airlines has doubled its Airbus A350F backlog to four aircraft.



Rytis Beresnevicius
19 Nov 2025 · 3 min



NOVEMBER 15TH, 2021

Rolls-Royce provides Silk Way West Airlines with replacement RB211 engines to support their fleet operations until 2026



Rolls-Royce plc has today signed an agreement with Silk Way West Airlines to provide replacement engines for five of its RB211-524 powered Boeing 747-400F aircraft that will support their operations until 2026.

SILKWAY AIRLINES FLEET RENOVATION



Thank you IL76
and B747 and
GOOD BUY

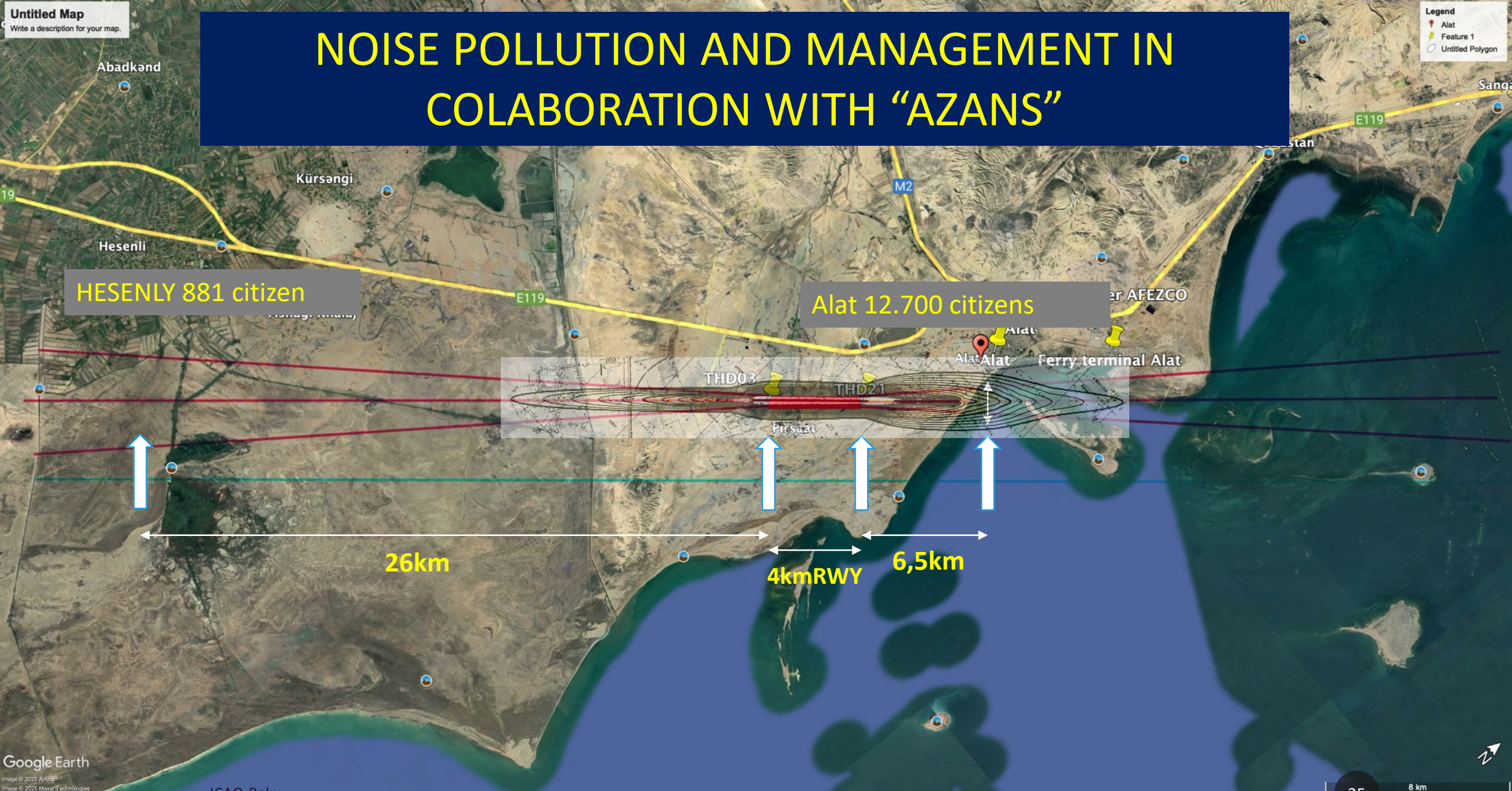


Here we come
B777 and A350

Less fuel consumption,
less air pollutions less
CO₂ emission



NOISE POLLUTION AND MANAGEMENT IN COLLABORATION WITH "AZANS"



EXAMPLES OF STRATEGY ALIGNMENT WITH ICAO DOCUMENTATION



- **Doc 9911, Recommended Method for Computing Noise Contours Around Airports (Second Edition, 2018):** referenced in the draft; integrated as a near-term target in the sustainable development framework; and cross-referenced within the sustainability policy and the noise and air pollution mitigation strategy.
- **Doc 9184, Land use and Environmental management:** referenced to Alat Airport sustainability strategy for design, construct and equipment procurement
- **Doc 10031, Guidance on Environmental Assessment of Proposed Air Traffic Management Operational Changes (First Edition, 2014):** referenced within the site wide carbon management and energy optimisation plan and the achieving Airport Carbon Accreditation plan in cooperation with AZANS.
- **Annex 16 Volumes I–III:** referenced within the sustainable procurement policy; noise and air pollution mitigation plan; Silkway airlines fleet transition and fuel transition from TS1 to JET A-1 blended with SAF

Applicable ICAO documents featured in the Appendix of the draft Alat Airport sustainability strategy which summarises applicable international and national drivers.

NEXT STEPS

- Identify and appoint owners + specialist support required for each strategic management plan outlined.
- Develop and refine implementation plans to confirm feasible target timeframes quoted in the sustainable development framework
- Finalise the organisational structure for strategy implementation.

CONCLUSION AND FUTURE OUTLOOK



- Alat Airport as a benchmark for sustainable airport operations in the region.
- Ongoing collaboration with ICAO and stakeholders for continuous improvement.
- Long-term commitment to environmental stewardship and operational excellence.

Tonci Peovic MBA Alat Airport CEO

—
Thank You



Alat Airport

CONNECTING THE WORLD, -CONSERVING THE NATURE