



The  
**voice** of the  
world's airports

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# "Net Zero 2050" Target and the Airport Carbon Footprint Accreditation Program - ACA

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# Airports Council International (ACI)

ACI-LAC is the regional office of Airports Council International (ACI) that represents the interests of airport operators in Latin America and the Caribbean.

**Mission:** to be the voice of the world's airports and to promote excellence in airport management and operation.



# The only global association of airports

Presence in Africa, Asia-Pacific, Europe, North America and Latin America and the Caribbean.



# ACI: Global to Local Scope

The only association that works at all levels of the airport industry.

- ACI promotes professional excellence in airport management
- ACI represents airports before governments, authorities and international organizations such as ICAO in the development of policies, standards and recommended practices.
- ACI also provides training and technical assistance to member airports.



# Commitment to Long-term ACI Carbon Reductions

Net Zero by 2050 established in 2021

## Commitment



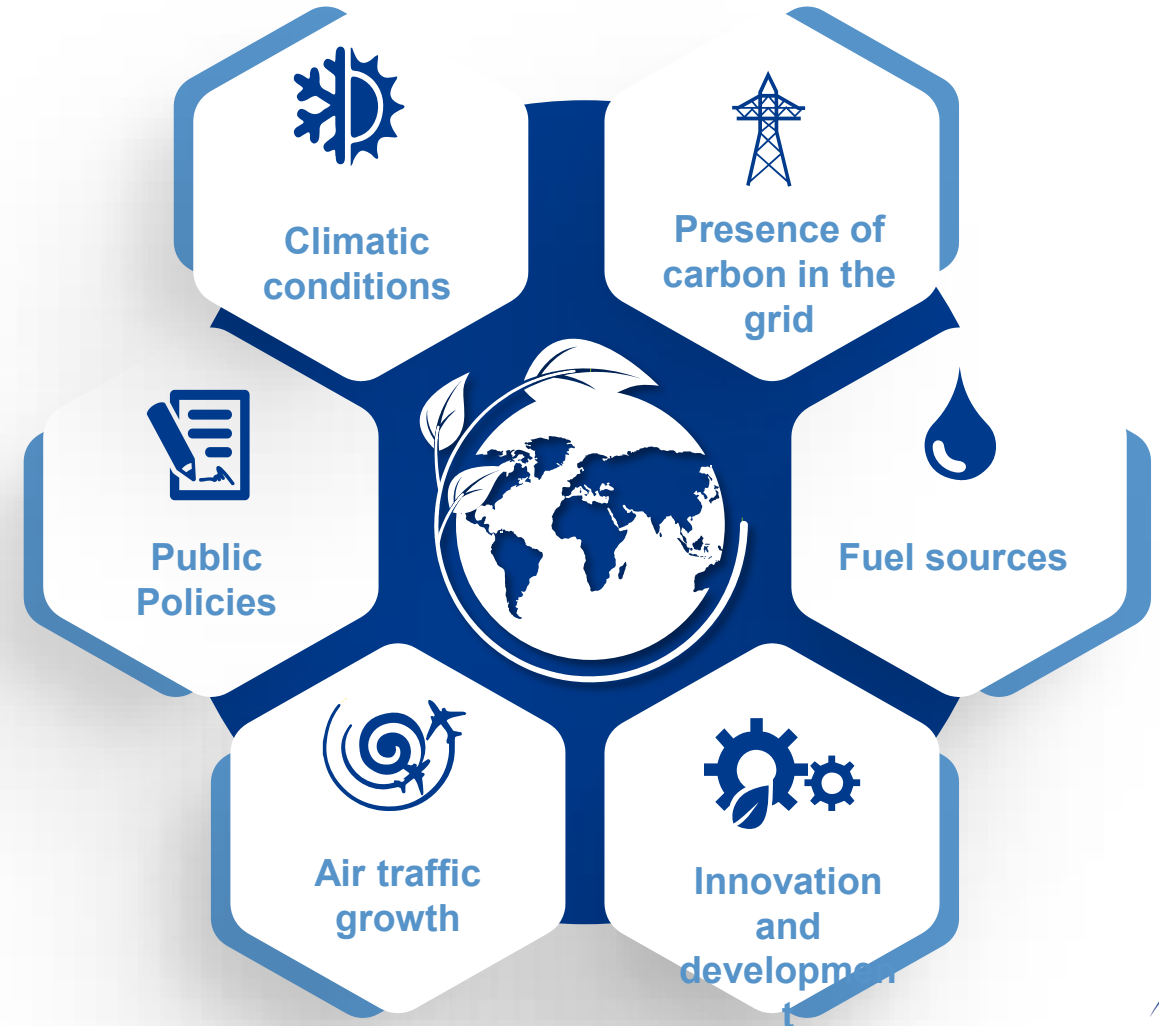
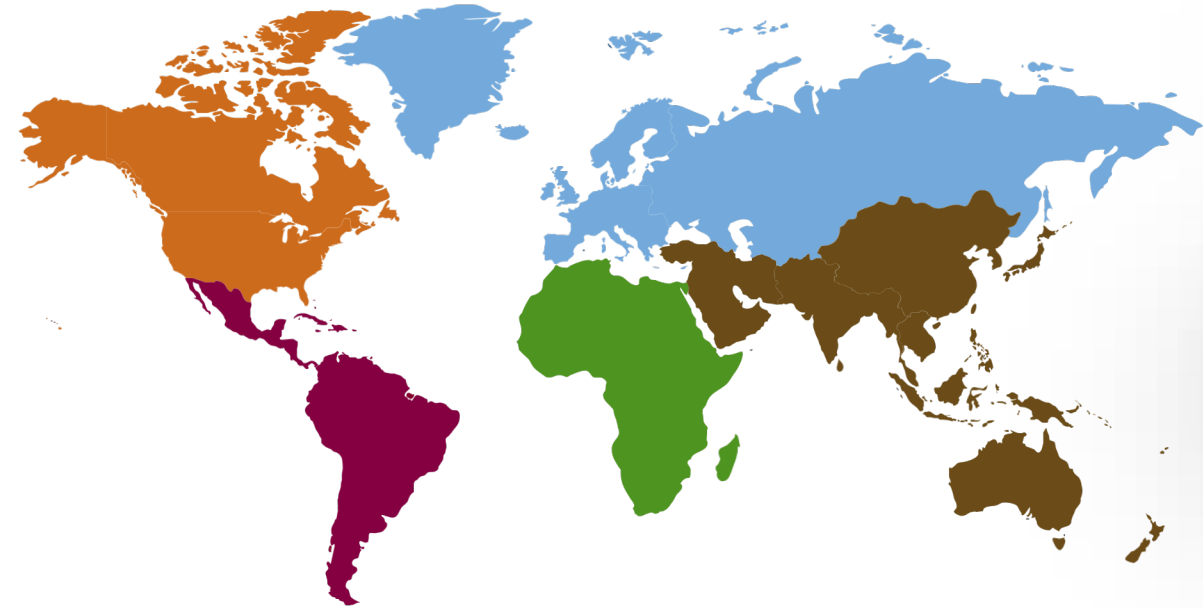
"ACI member airports, globally, are committed to achieving Net Zero Carbon Emissions by 2050 and urge governments to provide the necessary support to achieve this effort."

1. Why do we establish a commitment?
2. What is *Net Zero*?
3. *Net Zero vs Carbon Neutral*

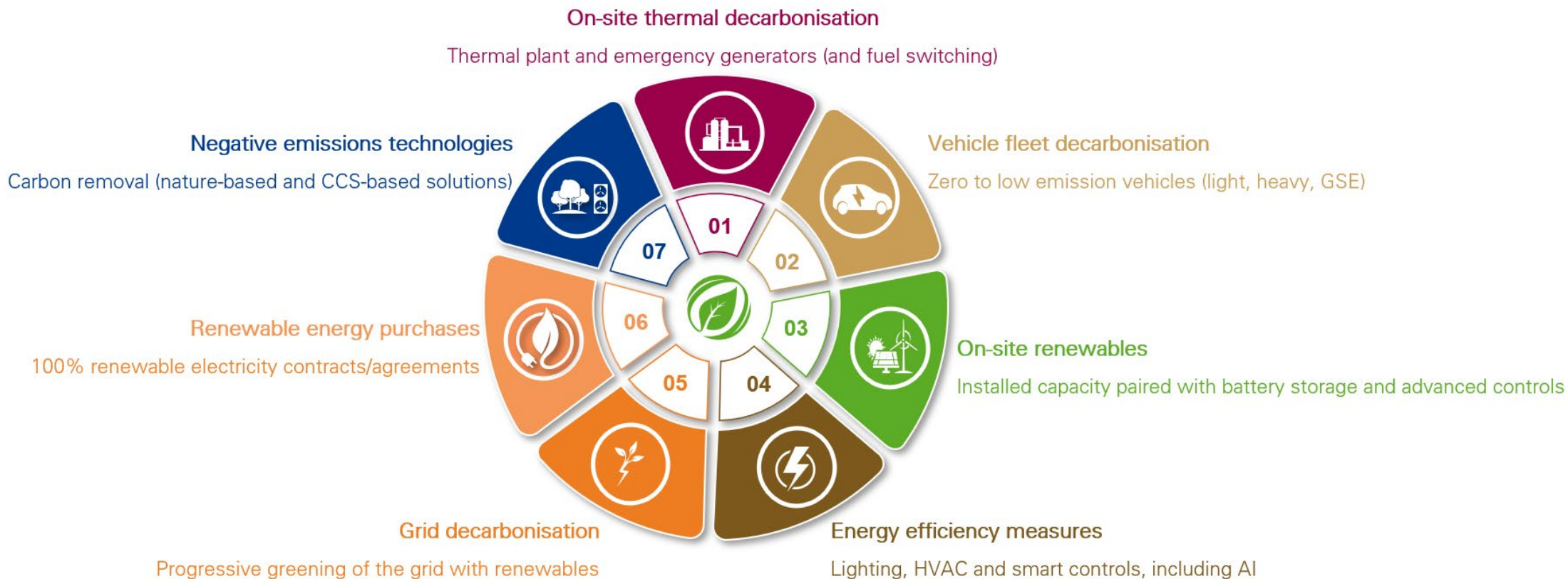
# Global commitment reflects regional differences

## Geographic location matters

- Relevant differences between regions

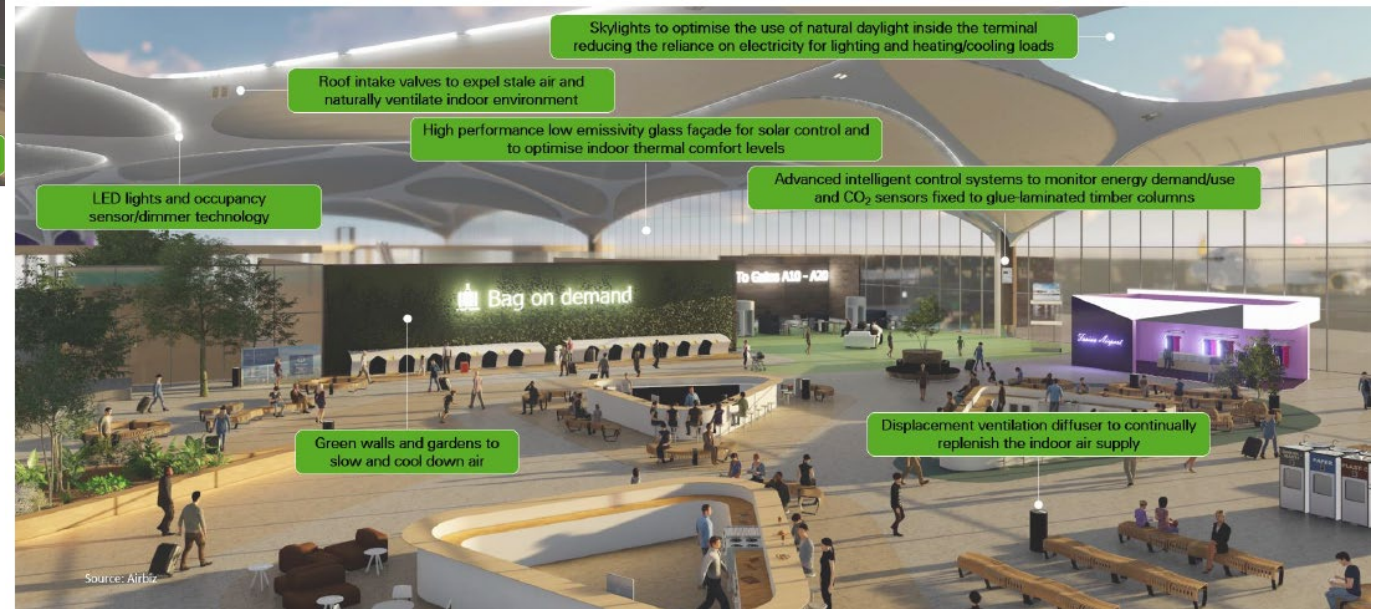


# Main measures that will influence the decarbonization of airports



# Measures to reduce emissions

## Technology and Innovation







# Airport Carbon Accreditation - ACA

- 554 accredited airports around the world
- 78 in Latin America and the Caribbean in 18 countries
- Nearly 52% of passengers worldwide fly through accredited airports
- The program helps airports manage and reduce their carbon emissions.

airport  
carbon  
accreditation

# Airport Carbon Accreditation - ACA



## Key features:

- Single global standard for CO2 emissions management
- Institutionally recognized by international organizations such as ICAO, European Commission, EUROCONTROL, FAA and UNFCCC.
- Recognizes and evaluates CO2 emissions management at airports
- Provides technical support for the management of CO2 emissions at airports
- **7** levels of accreditation



# Airport Carbon Accreditation

## Governance and Advisory Board

### Independent expert Advisory Board

- Policy direction, approval and advice
- Overall administrative oversight (Administrator, Technical Task Force)
- Monitors and strengthens progress of programme
- Encourages external recognition and endorsement

**Programme Owner**

**Advisory Board**

**Task Force**

**Technical task force of airport environmental managers**

- Continuing relevance of technical standards



**Administrator**

### Owned by ACI EUROPE

- Public positioning and marketing of programme
- Engages Administrator
- Optimises institutional approval
- Sets programme fees

### Independent Administrator - WSP

- Applicant registration and processing (entry, renewal and upgrades)
- Formal accreditation approval
- Annual and interim reporting and accounting
- Day-to-day secretarial work and administration
- Programme Help Desk
- Verifier oversight and training



ICAO



**Manchester Metropolitan University**





Which emissions  
can occur at  
an airport?



Note: The presented list of possible emissions sources at the airport is not exhaustive. Furthermore, the operational structure of every airport is different. Therefore, not all of the depicted emissions sources are present at every airport.

Design: inextremis.be - Illustrations: stock.adobe.com

#### Scope 1

##### Emissions from airport controlled sources

- 01 Vehicles/ground support equipment belonging to the airport
- 02 On-site waste management
- 03 On-site waste water management
- 04 On-site power generation
- 05 Firefighting exercises
- 06 Boilers, furnaces
- 07 De-icing substances
- 08 Refrigerant losses

#### Scope 2

##### Emissions from purchased electricity

- 09 Off-site electricity generation
  - A Heating
  - B Cooling
  - C Lighting

#### Scope 3

##### Emissions from other sources related to the activities of an airport

- 10 Flights
- 11 Aircraft ground movements
- 12 Auxiliary Power Unit
- 13 3rd party vehicles/ground support equipment
- 14 Passenger travel to the airport
- 15 Staff commute
- 16 Off-site waste management
- 17 Off-site water management
- 18 Staff business travel
- 19 Non-road construction vehicles and equipment
- 20 De-icing substances
- 21 Refrigerant losses

# Airport Carbon Accreditation



## Level 1 - Mapping

### Carbon Footprint Measurement

- Identify the source of Scope 1 and 2 emissions.
- Policy of commitment to emissions reduction.
- Data collection and calculation of annual carbon emissions
- Elaboration of carbon footprint report (scope 1 and 2)



# Airport Carbon Accreditation



## Level 2 - Reduction

### Defining a plan for emissions management

- Evidence of effective carbon management, including the establishment of targets.
- Demonstrate a reduction in Scope 1 and 2 CO2 emissions compared to the 3-year rolling average.



# Airport Carbon Accreditation



## Level 3 - Optimisation

### Third-party participation in carbon footprint reduction

- Scope of carbon footprint includes Scope 3 emissions.
- Evidence of stakeholder commitment to reduce emissions,



# Airport Carbon Accreditation



## Level 3+ *Neutrality*

Offsetting of remaining carbon emissions (scope 1 and 2) that cannot be reduced

- Compensate residual emissions using internationally recognized offsets (carbon credits).





# Airport Carbon Accreditation



## Level 4 - Transformation

**Long-term carbon management strategy towards absolute emission reductions**

- Extended carbon footprint
- Long-term absolute emission reduction target
- Define actions to achieve target and intermediate milestones to measure progress, aligned with the IPCC's 1.5°C.
- Evidence of third party involvement in emission reductions.



# Airport Carbon Accreditation



## Level 4 + Transition

### Residual emission offsets

- Compensate residual emissions using internationally recognized offsets (carbon credits).



# Airport Carbon Accreditation



## Level 5

**Highest level of the program setting the highest criteria for absolute emission reductions**

- Achieve and maintain a  $\geq 90\%$  reduction in absolute CO<sub>2</sub> emissions in Scope 1 and 2, and commit to achieving Net Zero Emissions in Scope 3 by 2050 or earlier.
- Use of carbon removals to offset residual emissions



# Example of Carbon Footprint of an airport

## SHARE OF TOTAL AIRPORT EMISSIONS

■ Scope 1 ■ Scope 2 ■ Scope 3

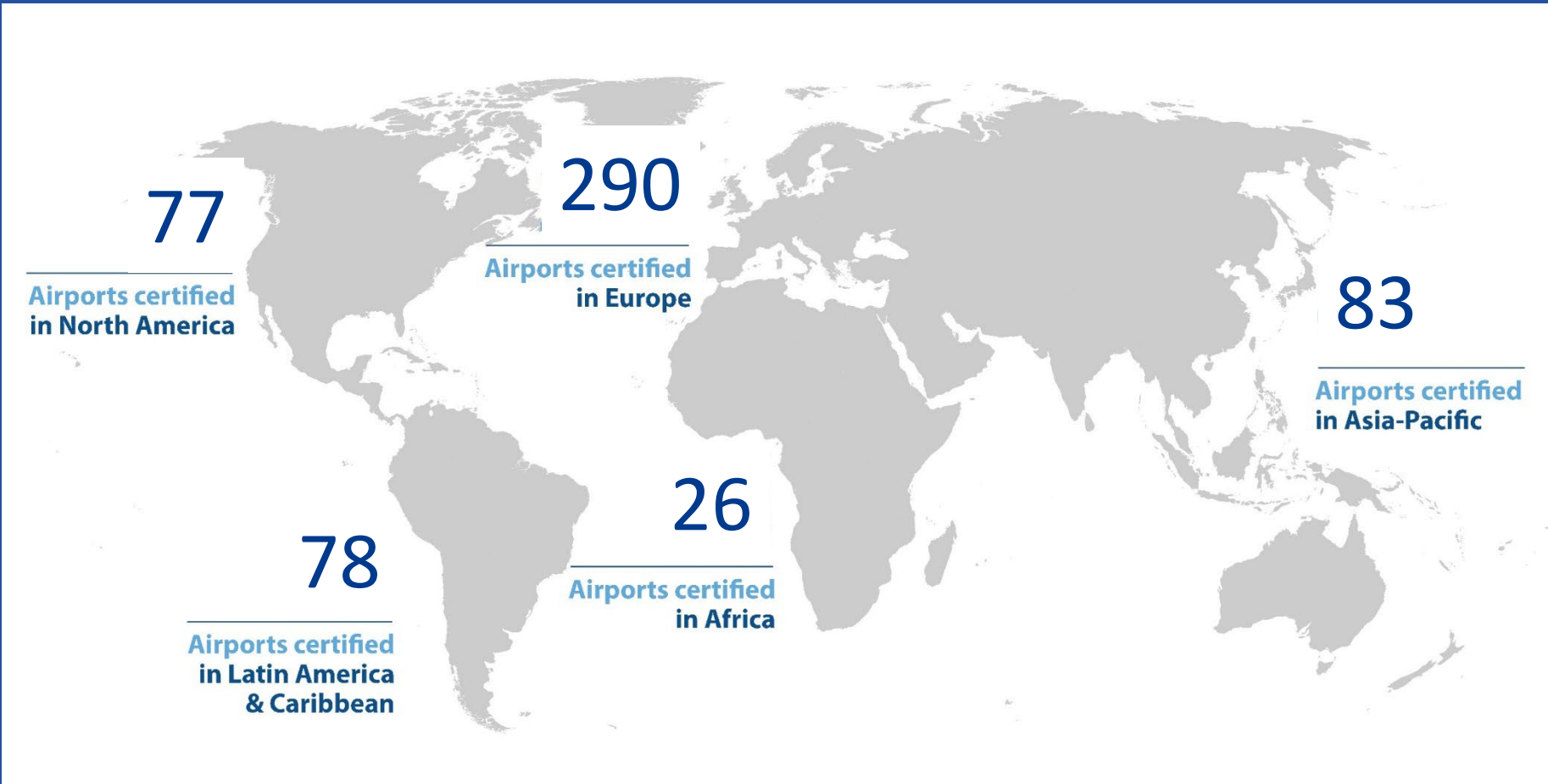


## 95% SCOPE 3 EMISSIONS

- Airport Vehicles
- Taxiing
- Approach
- PAX & employee access
- 3rd party GSE
- Electricity Consumption
- Take-off & climb
- Aircraft APU's
- Construction
- Waste treatment & Others



# Airport Carbon Accreditation



554 airports in  
86 countries

55% of the  
world's traffic

3.600 M  
of pax

2022-2023



**-1,232,196** tonnes of CO<sub>2</sub>e

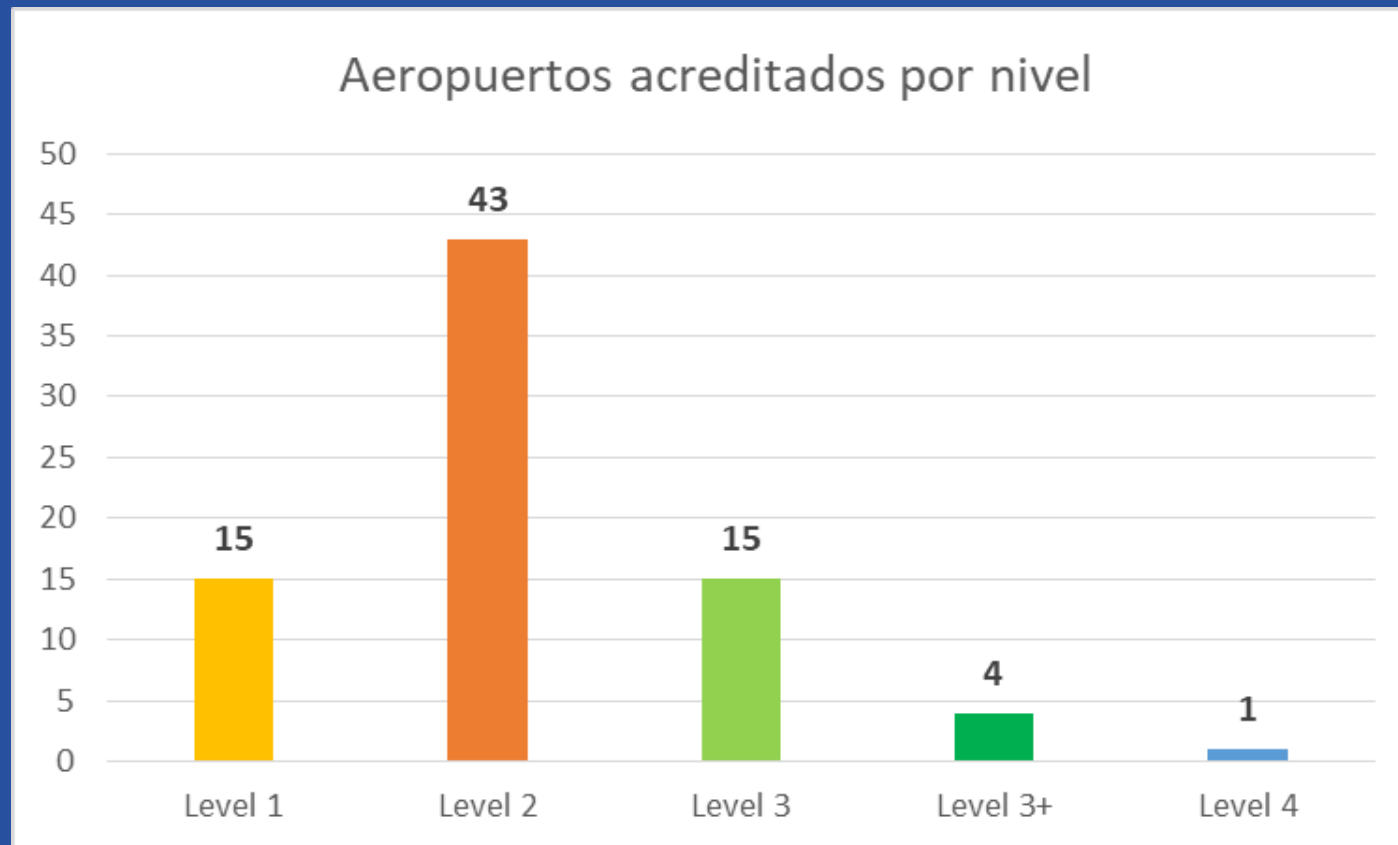


is equivalent to removing  
**250,000** cars from the road



# Airport Carbon Accreditation

- 78 Airports in Latin America and the Caribbean
- 18 countries / territories



# Decarbonization and Sustainability

## Main challenges and opportunities



**Electrification - demand continues to increase**



**New infrastructures - new energy sources and new generations of aircrafts**



**New Business Models - Hydrogen / Electric Aircraft**



**Adaptation to Climate Change**



**Communicating Better - Climate Emergency Response**



# Resilience and Adaptation to Climate Change

Research and environmental policy

## QUESTIONS FOR AIRPORTS:

Are you aware that there is an increased fire risk due to higher temperatures?



Are you aware that more airports may be used as a shelter or relief hub for weather-related disasters?



Do you know how climate change may affect the foundations of terminal buildings?

Should you do more to prevent increasing fire-strike risks due to changes in the local climate?

Are there enough available resources for increasing adaptation around the airport?

What would happen at an airport if the local power supply during strong winds and storms?



## CLIMATE CHANGE RESILIENCE AND ADAPTATION SURVEY REPORT



# Thank you!

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