



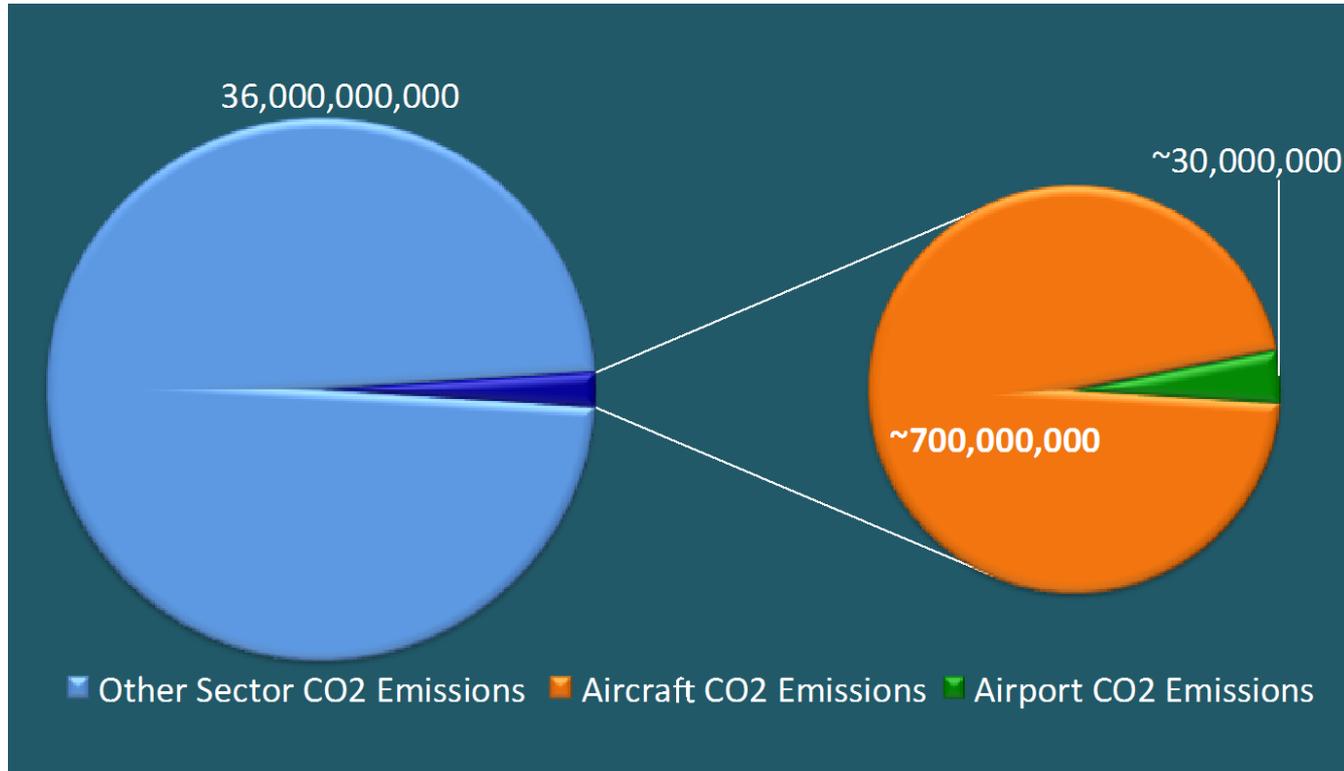
Eco Airports & Innovative Design Concepts

Airports Meeting the Climate Change Challenge

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Airport Carbon Accreditation



Contribution of Aviation to 2013 CO₂ Emissions (tonnes)





Main Sources of Aviation CO₂ Emissions

Airport Operator

- Electricity
- Heating
- Vehicles

Business Partners

- Aircraft
- Electricity & heating
- Vehicles
- Ground support equipment
- Airport access



Athens International Airport 2013 Footprint



Source of Emissions	Tonnes CO ₂	%
Electricity consumption	37,050	90.9%
Natural gas consumption	2,148	5.3%
Vehicle fuel consumption	1,480	3.6%
Other (generators, etc.)	70	0.2%
TOTAL	40,748	100%



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Electricity represents the main source of CO₂ emissions for airport operators



Motivation for airport initiatives

Improve efficiency & reduce costs

Raise sustainability profile & external
credibility

Reduce exposure to climate change regulatory
risks

Strengthen corporate responsibility vision

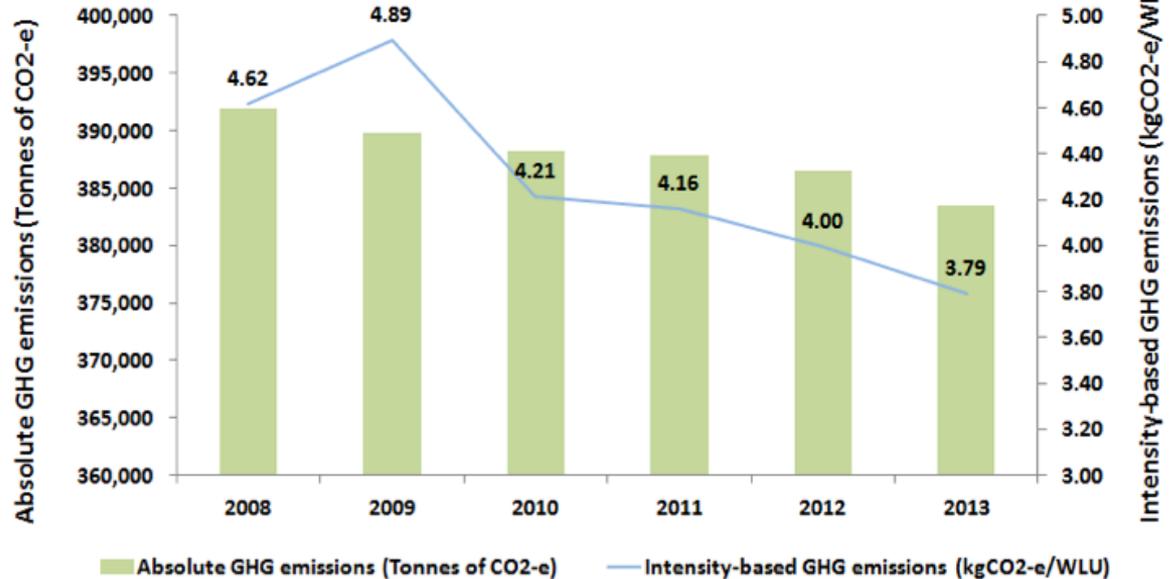


Hong Kong International Airport

Major Initiatives

- ✈ Integration of cooling systems.
- ✈ Lighting system improvements.

Airport-wide Greenhouse Gas (GHG) Emissions





Seattle-Tacoma International Airport

Major Initiatives

- ✈ Electric vehicles & biodiesel use.
- ✈ Provision of pre-conditioned air.
- ✈ Building efficiencies.





Delhi International Airport

Major Initiatives

- ✈ 1st airport terminal in the world to be registered as a Clean Development Mechanism (CDM) project since July 2013.
- ✈ Implementation of energy efficient measures.
- ✈ Savings of >16.000 tonnes of CO₂ per year.





Key features of successful airport initiatives

High level commitment

Awareness & training

Focus on energy and fuel savings

Carbon mapping & reduction target

Interdepartmental cooperation

Engagement of business partners



Airport Carbon Accreditation Commitment

"..... to reduce carbon emissions from airport operations fully within their own control with the ultimate target to become carbon neutral."





Milestones

June 2009
Europe



June 2013
Africa



September 2014
N. America



November 2011
Asia-Pacific



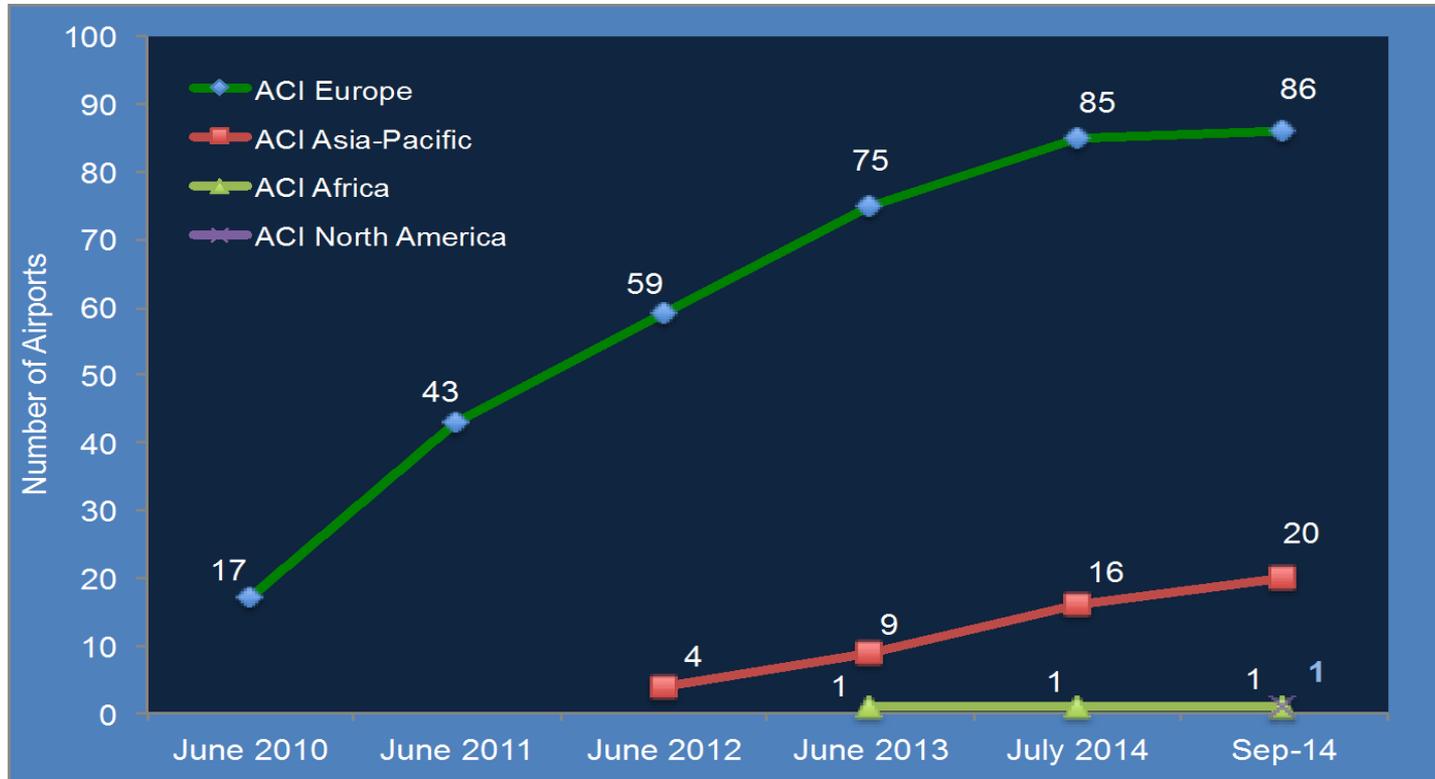
November 2013
One of top-3 low
carbon projects
in Europe



The only standard for carbon management in the airport industry

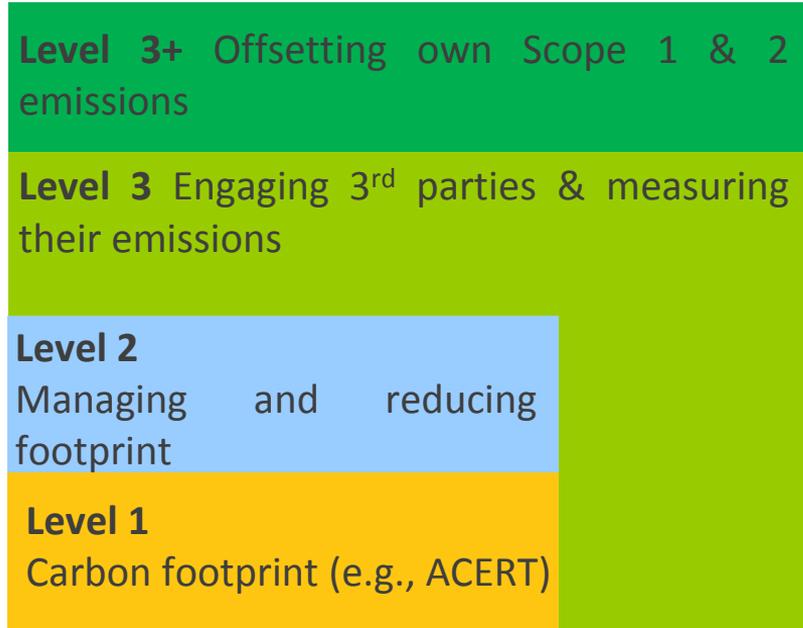


Participants Serve 24% of Global Passenger Traffic





Accreditation Levels

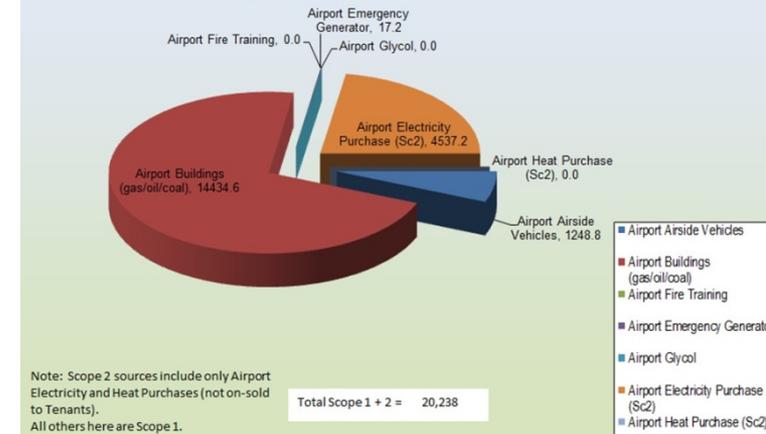




Airport Carbon & Emissions Reporting Tool

- Developed by ACI & Transport Canada
- Free carbon mapping tool
- Minimum expertise required
- Operational inputs: fuel use, electricity, ground transport estimates, aircraft activity, etc.
- Automatic report generation

Figure 1: Airport GHG Inventory - Scopes 1 and 2 (t CO₂ e)





Departing Flights CO₂ Emissions by Airport



Source: D. Southgate



How can airports
help airlines
reduce their
emissions?

Efficient airport design

Biofuel support

Awareness/Training/Tools

Policy interventions

Partnerships



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Thank You

