



**airport
carbon
accreditation**

MAPPING | REDUCTION | OPTIMISATION | NEUTRALITY

Achieving Carbon Reduction

www.airportCO2.org

Your interactive roadmap to
the global airport
industry's carbon
management.





Achieving Carbon Reduction



Paris-Charles de Gaulle Airport



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In today's globalised world, the theme of mobility surrounds us. Yet, there is a growing awareness that the planet's resources are finite. Society has woken up to the potentially damaging effects of climate change and new policies are being put in place to address them.

The air transport sector, with its legacy of innovation, has sought to drive the agenda of climate action forward, in particular, the airport industry. As the visible face of aviation on the ground, airports bring undeniable benefits to society - connecting places, people and products. Following years of working individually to address their local environmental impact, airports are now working in a collective way across the globe, to make further strides in managing, reducing and ultimately neutralising their carbon footprint.

And **Airport Carbon Accreditation** is empowering their efforts.



“

Galapagos Ecological Airport has climate awareness and action in its DNA. Every aspect of the airport's development and management reflects the best practice we have put at the core of this airport, including a terminal building from 80% recycled materials and 100% of our energy coming from renewable sources. As the global carbon standard for our industry, participation in **Airport Carbon Accreditation** is a nature fit for us. We are proud to be the first airport in Latin America and the Caribbean to reach the highest level of Airport Carbon Accreditation - 3+ Neutrality.

Galapagos Ecological Airport



Aeropuerto Ecológico GALÁPAGOS



Galapagos Ecological Airport



1. What is Airport Carbon Accreditation?

Airport Carbon Accreditation is the only institutionally-endorsed, global carbon management certification programme for airports. It independently assesses and recognises the efforts of airports to manage and reduce their carbon emissions through 4 levels of certification: 'Mapping', 'Reduction', 'Optimisation' & 'Neutrality'. **Airport Carbon Accreditation** is also the only global airport specific carbon **standard** which relies on internationally recognised methodologies. It provides airports with a common framework for active carbon management with measurable goal-posts. The programme is site-specific allowing flexibility to take account of national or local legal requirements that individual airport operators have to comply with, while ensuring that the methodology used is always robust.

Airport Carbon Accreditation is aimed at innovative airports and strives to allow the airport industry to effectively reduce its environmental footprint, to benefit from increased efficiency through lowered CO₂ emissions, shared expertise and knowledge exchange, as well as better communication of the results.



36

Airports certified
in North America

136

Airports certified
in Europe

47

Airports certified
in Asia-Pacific

17

Airports certified
in Latin America
& Caribbean

10

Airports certified
in Africa

The 246 airports certified by the programme welcome 44.2% of global air passenger traffic annually.



Mumbai International Airport Pvt Ltd has participated in Airport Carbon Accreditation programme since 2011. Subsequently, the company has undertaken and implemented several green measures and energy conservation projects to reduce its business impact on the environment. These include roof-top solar power plants (2.56 MWp), clean fuel programs, large scale replacement of conventional lights with LED lights, installation of sun beam pipe, etc. In 2017, Mumbai Airport has achieved the highest level of Airport Carbon Accreditation – 3+ Neutrality – in recognition of its GHG management initiatives and sensitization of the stakeholders towards the airport industry's response to the challenge of climate change."

**Chhatrapati Shivaji
International Airport
Mumbai**



Through its 4 levels of certification, **Airport Carbon Accreditation** acknowledges that airports are at different stages towards comprehensive carbon management and carbon neutrality. It is a programme for airports of all sizes, extending even beyond hubs and regional airports with scheduled passenger traffic, to include general aviation and freight-focused airports.

First launched in 2009 by ACI EUROPE, **Airport Carbon Accreditation** has established itself as the authoritative industry standard for certifying carbon management at airports. As of September 2018, there are **136 European airports** accredited at one of the 4 available levels of certification; these airports welcome **66.1% of air passenger traffic in Europe**. The number of airports certified at each level of the programme, signifies clearly that regardless of size or geography, these airports are leading "a quiet revolution," actively lowering aviation's carbon footprint on the ground.

In November 2011, the programme expanded to the **Asia-Pacific region of ACI**. As of September 2018, **47 airports in Asia-Pacific** are certified, 5 of them reaching the highest Level 3+ Neutrality. The programme was also extended to the **African region of ACI in June 2013**. As of now, **10 airports** are making efforts to mitigate their carbon footprint. Abidjan Airport is carbon neutral.

In September 2014, **Airport Carbon Accreditation** took off in **North America**. Thanks to recent activity of airports in this region, **36 of them are now accredited**. Dallas Fort Worth Airport is carbon neutral.

The programme went **global** in November 2014 with its extension to airports in **Latin America and the Caribbean**. Airports in the region have proved eager actors in action against climate change, with **17** of them actively addressing their carbon emissions within the programme.

2. Why Apply?



The airport is a uniquely complicated space, typically welcoming millions of passengers, thousands of vehicles and hosting hundreds of companies. **Airport Carbon Accreditation** has been developed specifically for airports seeking to address their carbon emissions and become more efficient. Accredited airports across the world have developed a wide range of activities to reduce carbon emissions linked to airport operations. These emissions mainly stem from energy use in airport buildings and infrastructure, transport to/from airports, airside vehicles, aircraft ground movements and energy consumption and refrigerants.



Airport Carbon Accreditation allows us to showcase important achievements with regard to energy management, to translate our ambitions into a long-term emissions reduction target and to underscore our commitment to protecting the environment to our stakeholders.”

Athens International Airport



By becoming **Airport Carbon Accredited**, an airport benefits in many ways including

- Achievement of real, verified emissions’ reductions.
- Data collection and verification, which ensures that a clear understanding of emissions at the airport is developed, enabling the airport to identify priority areas for emissions’ reduction.
- Enhanced dialogue between airport personnel and different departments on issues relating to CO₂ emissions.
- Further credibility to claims made by the airport in the public domain.
- Improved emissions’ performance and operational/cost efficiencies not only for the airport itself, but also for third parties responsible for emissions’ sources at the airport.
- Increased shareholder value, brand reputation and stakeholder support.

January 2017 - **Athens International Airport** becomes carbon neutral.
Mr Olivier Jankovec, Director General, ACI EUROPE, Dr Yannis Paraschis, CEO of AIA, Ms Angela Gittens, Director General, ACI World





Amsterdam Airport Schiphol
Fleet of solar-powered buses at Amsterdam Schiphol Airport

3. Making a Difference

Airport Carbon Accreditation provides a unique common framework and tool for active carbon management at airports with measurable tools. It covers operational activities that contribute the most to carbon emissions. **Airport Carbon Accreditation** is site specific and can be used at any airport as part of its daily environmental management activity and long term strategy. It helps to guide and support airport environmental management through a process of continual improvement and partnership with its airport stakeholders.

Airport Carbon Accreditation has continuously succeeded in reducing significant levels of CO₂ emissions. Year 9 of the programme was no exception with a total reduction of **347,026 tonnes of CO₂** achieved.




347,026
tonnes of CO₂

It is equal to the CO₂ sequestered by **8,158,834 seedlings** grown for 10 years


4. Levels of Certification

Level 1
Carbon footprint



airport carbon accredited
MAPPING

Level 2
Managing and reducing footprint



airport carbon accredited
REDUCTION

4 steps to carbon neutrality

Level 3
Engaging others & measuring their emissions



airport carbon accredited
OPTIMISATION

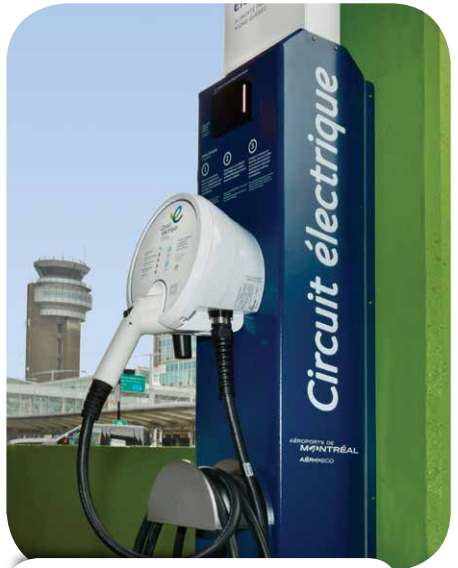
Level 3+
Offsetting own scope 1 & 2 emissions



airport carbon accredited
NEUTRALITY



Electric car at **Adelaide Parafield Airport**



EV charging station at **Montreal-Pierre Elliott Trudeau International Airport**

Level 1: Mapping



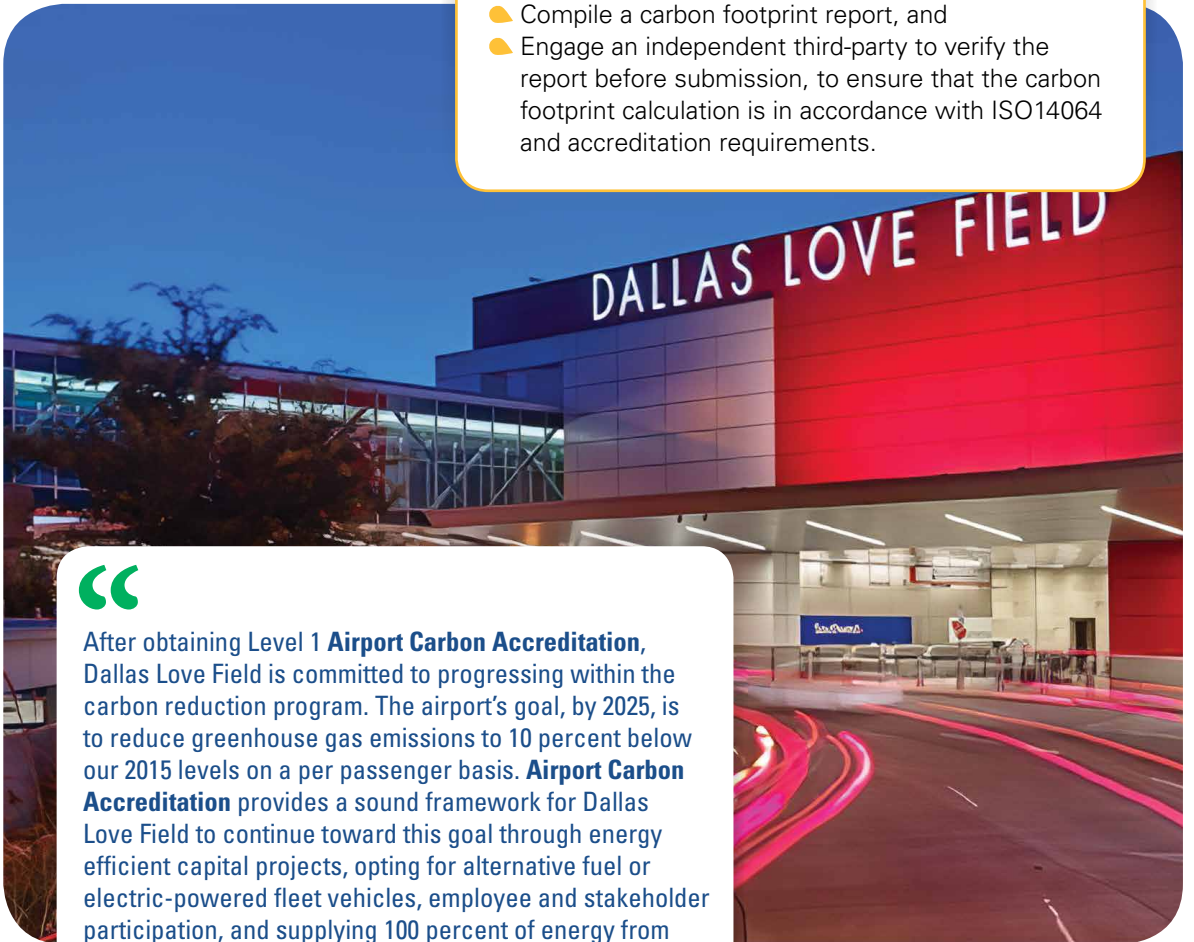
What is it?

Becoming **Airport Carbon Accredited** at the **Mapping** level requires carbon footprint measurement.

How to achieve it?

To achieve this level of accreditation, an airport has to:

- Determine its 'organisational boundary' and the emissions sources within that boundary which are Scope 1 and Scope 2 sources, as defined by the Greenhouse Gas Protocol.
- Provide written evidence of policy commitment to emissions reduction by the top management at the airport.
- Collect data and calculate the annual carbon emissions for the previous year.
- Compile a carbon footprint report, and
- Engage an independent third-party to verify the report before submission, to ensure that the carbon footprint calculation is in accordance with ISO14064 and accreditation requirements.



After obtaining Level 1 **Airport Carbon Accreditation**, Dallas Love Field is committed to progressing within the carbon reduction program. The airport's goal, by 2025, is to reduce greenhouse gas emissions to 10 percent below our 2015 levels on a per passenger basis. **Airport Carbon Accreditation** provides a sound framework for Dallas Love Field to continue toward this goal through energy efficient capital projects, opting for alternative fuel or electric-powered fleet vehicles, employee and stakeholder participation, and supplying 100 percent of energy from renewable sources.

**Dallas Love Field
Airport**



Dallas Love Field

Level 2: Reduction



An airport, however big or small, has to take responsibility for its effects on its community, as well as the surrounding environment. Being **Airport Carbon Accredited** gives our environmental efforts a solid framework, which makes it a lot easier for us to set goals for ourselves and that way be a responsible part of our community.”

Libreville
Airport



What is it?

Becoming **Airport Carbon Accredited** at the **Reduction** level requires carbon management and progress towards a reduced carbon footprint.

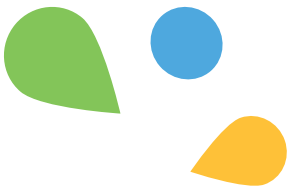
How to achieve it?

To achieve this level of accreditation, an airport has to:

- Fulfill all the requirements of Mapping.
- Provide evidence of effective carbon management procedures including target setting, and
- Demonstrate a reduction in Scope 1 and 2 CO₂ emissions against a 3 year rolling average.



Level 3: Optimisation



What is it?

Becoming **Airport Carbon Accredited** at the **Optimisation** level requires third-party engagement in carbon footprint reduction. Third parties include airlines and various service providers, for example, independent ground handlers, catering companies, air traffic control and others working on the airport site. In addition, this includes engagement on surface access modes (road, rail) with authorities and users.

How to achieve it?

To achieve this level of accreditation, an airport has to:

- Fulfill all the requirements of Mapping and Reduction.
- Widen the scope of its carbon footprint to include a range of Scope 3 emissions. Scope 3 emissions to be measured include:
 - landing and take-off cycle emissions.
 - surface access to the airport for passengers and staff.
 - staff business travel emissions.
 - any other Scope 3 emissions which the airport chooses to include.
- Presentation of evidence of engagement with third-party operators to reduce the above emissions.

Level 3+: **Neutrality**



What is it?

Becoming **Airport Carbon Accredited** at the **Neutrality** level requires that the airport company compensates for the remaining carbon emissions under its control that cannot be further reduced, by offsetting.

How to achieve it?

To achieve this level of accreditation, an airport has to:

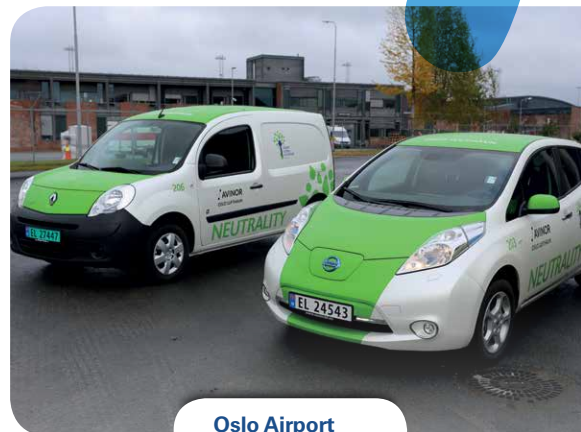
- Fulfill all requirements of Mapping, Reduction and Optimisation, and
- Offset its remaining carbon emissions over which the airport has control, using internationally recognised offsets.

More information

Carbon neutrality means achieving net zero carbon emissions. Achieving carbon neutrality for an airport is in almost all cases impossible without external help. For this reason, airports, among many other industries, look to carbon offsetting as the final part of the process. Carbon offsetting is providing funds to other projects that reduce carbon dioxide so as to compensate for the emissions that one is not able to eliminate. **Airport Carbon Accreditation** has been designed to give participant airports flexibility within specific parameters in deciding how they should offset their emissions in order to achieve carbon neutrality.



Dallas Fort Worth International Airport.



Oslo Airport

5. Official Endorsements & Advisory Board

From the very beginning, the programme has enjoyed the patronage of the **European Civil Aviation Conference (ECAC)** and the **European Organisation for the Safety of Air Navigation (EUROCONTROL)**. At the COP21 climate change negotiations in Paris (December 2015), the **United Nations Framework Convention on Climate Change (UNFCCC)** and ACI also signed a partnership to further promote climate action by airports through **Airport Carbon Accreditation**. ACI is supporting the UNFCCC *Climate Neutral Now* campaign.



ACI and UNFCCC announcing their partnership at COP21 in Paris.



Independent Expert Advisory Board:

The administration of **Airport Carbon Accreditation** is overseen by an independent Advisory Board, with participation from institutions that have endorsed the programme, as well as representatives from other relevant organisations which have expressed support or an interest in the programme. The members of the Advisory Board play an active role in monitoring the progress of **Airport Carbon Accreditation**.

The Advisory Board is comprised of many distinguished, independent experts from the fields of aviation and environment, including:

- **Mr Eamonn Brennan**, Director General, EUROCONTROL
- **Mr Damien Meadows**, Advisor on European and International Carbon Markets, DG Climate Action, European Commission
- **Mr Filip Cornelis**, Director Aviation, DG MOVE Directorate E, European Commission
- **Mr Niclas Svenningsen**, Manager, Strategy and Relationship Management, United Nations Framework Convention on Climate Change (UNFCCC)
- Focal Point: **Ms Jane Hupe**, Deputy Director, Environment, International Civil Aviation Organization (ICAO)
- **Mr Christopher Paling**, Senior Lecturer, Centre for Aviation, Transport and Environment, Manchester Metropolitan University (MMU)
- **Mr Tim Johnson**, Director, Aviation Environment Federation, UK (in his personal capacity)
- **Mr Patrick Gandil**, Direction Générale de l'Aviation Civile (DGAC), Focal Point for Environment, European Civil Aviation Conference (ECAC)
- US FAA Technical Liaison: **Dr Thomas Cuddy**, Environmental Specialist, Federal Aviation Administration of the United States (FAA)



Airport Carbon Accreditation banner at **Sir Seewoosagar Ramgoolam Airport** in Mauritius

6. Institutional Support for Airport Carbon Accreditation

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Airport Carbon Accreditation

has proven a successful process for airports to assess their performance, identify efficiencies and improvements, and pursue a full range of economic, environmental, social, and operational sustainability. The growing community of accredited airports worldwide proves that the aviation industry is environmentally conscious and in terms of carbon management, is an example to follow for other industries.”

Dr Thomas Cuddy

Environmental Specialist, US FAA
(Federal Aviation Administration of the United States)

“

COP21 was about engaging governments at the highest level, but effective climate action must also be significantly supported by a progressive private sector – sustainability is everyone’s responsibility. What **Airport Carbon Accreditation** has achieved over the past seven years is both surprising and inspiring. By charting a clear path, airport operators are acting across a range of measures, from mapping their CO₂ emissions, reducing them and engaging others, up to becoming carbon neutral too – there is much that other industries can learn from this and even emulate.”

Patricia Espinosa

Executive Secretary, UNFCCC
(United Nations Framework Convention on Climate Change)

“

Airport Carbon

Accreditation is a highly significant initiative by airports for meaningful and measurable action in addressing their greenhouse gas emissions. I commend ACI for its success with the programme, in line with ICAO’s global strategy for dealing with climate change.”

Dr Fang Liu

Secretary General, ICAO
(International Civil Aviation Organization)

“

Finding solutions for the decarbonisation and sustainability of transport is one of the great challenges of our time. To see airports take action of their own accord through the Airport Carbon Accreditation programme is encouraging and should inspire others. This independent system empowers airports around the globe to address their carbon emissions and to do their part in the fight against climate change.”

Young Tae Kim

Secretary General, ITF
(International Transport Forum)

“

It is reassuring to see an industry as visible and strategically relevant as the airport industry proactively addressing its carbon emissions. By allowing airports to work their way through 4 levels of certification, **Airport Carbon Accreditation** bridges their individual efforts and their collective achievement as an industry. I congratulate ACI on the momentum they have achieved with this - bringing an industry-led climate change initiative which began here in Europe all the way to becoming the global standard.”

Miguel Arias Cañete

EU Commissioner for Climate Action and Energy

7. How to become Airport Carbon Accredited



Becoming the first carbon accredited airport in Asia-Pacific to achieve 'Optimisation' not only secures recognition against the emerging industry standard for the carbon reduction work of Airport Authority Hong Kong and over 40 of our business partners, but also provides a practical framework for further improving our performance."

Hong Kong International Airport



Any airport wishing to apply to the programme should have a continued dialogue with the **Airport Carbon Accreditation** Administrator, WSP, to ensure that information is prepared correctly and in line with the minimum **Airport Carbon Accreditation** requirements.

- Contact **Airport Carbon Accreditation** Administrator to obtain up-to-date programme documentation.
- Decide on level of certification based on level of carbon management activity at airport.
- Collate data and prepare documentary evidence to support application.
- Identify an independent third party organisation to verify data and supporting documentary evidence.
- Contact **Airport Carbon Accreditation** Administrator to make your formal application.

Airport Carbon Accreditation has an Online Tool specifically designed to make the application more cost effective and less time consuming for airports. The Online Tool, designed to allow registration and application to the programme, is readily accessible at: www.aca-application.org.



Airport Carbon Accreditation ceremony at **ACI Asia-Pacific General Assembly in Doha 2017**.



Quito International Airport receives their Level 1 Mapping certificate during **ACI LAC Assembly in Panama 2015**.

8. The Role of the Verifier



Being a leader in environmental affairs requires the engagement of the entire SFO airport community to achieve our sustainability goals. Examples of this approach include the following:

- Electric ground power and pre-conditioned air for parked aircraft, allowing airlines to use less jet fuel while on the ground
- Construction of the AirTrain, an electric-powered light rail system, eliminating over 600 daily bus trips
- Funding support to extend the Bay Area Rapid Transit (BART) system directly into the airport
- Creation of a Clean Vehicle Policy to promote the use of low emission vehicles by ground transportation providers and airport departments
- Incentive programs for employees to use public transit for their commute to work

For SFO, achieving Level 3 of Airport Carbon Accreditation represents a significant step towards our goal to become carbon neutral.”

San Francisco International Airport



As part of the **Airport Carbon Accreditation** application process, each airport’s carbon footprint must be independently verified before its full review by the programme Administrator.

Who can verify?

Verifiers or verification bodies may be:

- Nationally accredited certification bodies.
- An environmental consultancy or accountancy firm offering validation and verification services as part of their business portfolio.
- Individual environmental specialists with an appropriate track record of verification.
- Organisations that already report on an airport’s behalf (financial reporting / ISO / EMAS certification).
- The up-to-date list of approved verifiers is available on www.airportcarbonaccredited.org.

Any potential verifier has to follow a dedicated training and comply with specific requirements set by the programme Administrator.



Through the Dubai Airports Environmental Management Plan, we continue to implement efficiencies, minimise our environmental risk and pursue innovative ideas to limit our environmental impact while fully supporting the UAE Vision 2021. As a responsible member of the aviation community, Dubai Airports has committed to grow and manage our business in a sustainable manner.”

Dubai Airport

Dubai International



9. Recognition

*a world you like
with a climate you like*



In 2013, the programme reached Top 3 in the “A World You Like” competition in which businesses, NGOs and local authorities were recognised for their efforts to build a low carbon economy. This initiative, launched by European Commission’s Directorate-General for Climate Action, placed **Airport Carbon Accreditation** at the very top of innovative carbon management projects in Transport & Tourism category.

In May 2014, the airport industry’s efforts to address its carbon emissions received the Highly Commended prize at the annual global International Transport Forum (ITF) Awards issued by the Organisation for Economic Cooperation and Development (OECD).

Only a month later, in June 2015, the animation “Life is about Movement”, created to highlight the essence of the programme, was awarded the Gold Totem prize in the “Businesses & Eco-Performances” category at the 4th Deauville Green Awards 2015.

In 2016, **Airport Carbon Accreditation** was featured in the first ever European Aviation Environmental Report, published by the European Commission, in very positive terms as one of the innovative initiatives of the airport industry to tackle environmental challenges.

It is also noteworthy that **Airport Carbon Accreditation** has been featured in the ITF Transport Outlook 2017, an authoritative publication by the International Transport Forum of the Organisation for Economic Cooperation and Development (OCDE).

10. Pledge



European airports have doubled their initial pledge made at COP21 by deciding to increase the number of carbon neutral airports in Europe to 100 by 2030. This new target was announced at the 27th ACI EUROPE Annual Congress in Paris, in June 2017.

Airports in Europe have been hard at work to meet this ambitious goal ever since, bringing the total number of carbon neutral airports in Europe to 39, as of September 2018.

11. Who's behind it?



About ACI EUROPE *Launched in 2009*

ACI EUROPE is the European region of Airports Council International, the only global association of airport operators. Based in Brussels, Belgium, ACI EUROPE represents 500 airports in 45 European countries. In 2016, its member airports handled over 90% of commercial air traffic in Europe, welcoming more than 2 billion passengers, 20 million tonnes of freight and 23,7 million aircraft movements.

www.aci-europe.org



About ACI Asia-Pacific *Since November 2011*

ACI Asia-Pacific, one of the five regions of the Airports Council International, is based in Hong Kong and represents over 580 airports in 48 countries in Asia-Pacific and the Middle-East. In 2015, ACI Asia-Pacific airports handled 2.79 billion passengers and 49.6 million tonnes of cargo.

www.aci-asiapac.aero



About ACI Africa *Since June 2013*

ACI-Africa is the African region of Airports Council International. The region is composed of 62 members, operating 250 airports, situated in 48 countries across the continent and 24 business partners. In 2016, ACI Africa member airports handled 187 million passengers and 2,215 tonnes of cargo.

www.aci-africa.aero



About ACI-NA *Since September 2014*

Airports Council International-North America (ACI-NA) represents local, regional, and state governing bodies that own and operate commercial airports in the United States and Canada. ACI-NA member airports enplane more than 95 percent of the domestic and virtually all the international airline passenger and cargo traffic in North America.

www.aci-na.org



About ACI-LAC *Since November 2014*

ACI Latin America-Caribbean (ACI-LAC) represents the interests of airport operators in Latin American and the Caribbean. Currently, ACI-LAC has over 61 members operating more than 270 airports in 32 countries and territories from the Latin American and Caribbean region.

www.aci-lac.aero

With
the support
of ACI World:




About WSP

WSP is the independent Administrator of Airport Carbon Accreditation. As such, it accredits the airports under the programme, provides administrative and secretariat services and advises applicant airports through the accreditation process.

WSP is one of the world's leading engineering professional services firms. WSP are technical experts and strategic advisors, and provide services to transform the built environment and restore the natural one, in areas including environmental and climate remediation, urban and transport planning, sustainable transport networks and strategies, airport sustainability, carbon management and energy planning and management.

www.wsp.com



To find out more about
Airport Carbon Accreditation,
including an up-to-the-minute
list of participating airports,
please visit our website at:
www.airportcarbonaccredited.org
or the interactive website **www.airportCO2.org**

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