

ANNUAL REPORT

2012-2013 / June 2013



**airport
carbon
accreditation**

MAPPING | REDUCTION | OPTIMISATION | NEUTRALITY



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Preface

We are pleased to release the fourth edition of the Airport Carbon Accreditation Annual Report, which documents airports' activities to better manage and reduce their CO₂ emissions during the fourth year of operation of Airport Carbon Accreditation.

Over the course of 'Year 4', which ended in May 2013, **Airport Carbon Accreditation** has built on the successes of its accredited airports, with membership continuing to grow in both Europe and Asia-Pacific. A total of 75 European airports are now accredited representing 58.6% of European air traffic, or over 929 million passengers and 9 Asia-Pacific Airports are now accredited, totalling 130 million passengers, or 15% of Asia-Pacific's air traffic.

Altogether, these accreditations represent 21.7% of worldwide passenger traffic.

This report outlines some of the background to the development of **Airport Carbon Accreditation**, the programme requirements and the benefits of participation. It also presents data on the aggregate emissions of accredited airports, and showcases examples of best practice in the field of carbon management alongside airports' experiences of the accreditation process. The latter sections of the report also summarise some of the key issues that have been addressed during the year to ensure that **Airport Carbon Accreditation** adapts to the needs of airports, whilst at the same time reflects current conventions in greenhouse gas emissions reporting.

This report was prepared by the **Airport Carbon Accreditation** Administrator (WSP Environment and Energy) and was reviewed and approved by the **Airport Carbon Accreditation** Advisory Board on 3rd May 2013.

1 Introduction

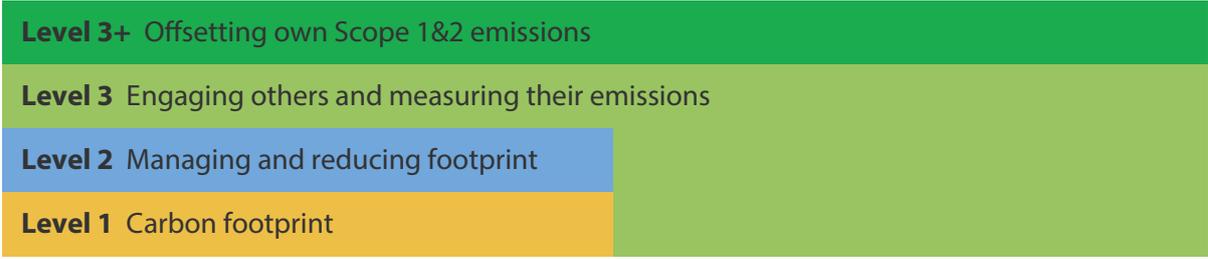
1.1 Overview of Airport Carbon Accreditation

- ACI Europe and ACI Asia-Pacific recognise that aviation is a significant contributor to climate change and support their members in assessing and reducing their carbon impact through the **Airport Carbon Accreditation** programme.
- **Airport Carbon Accreditation** is a voluntary programme through which airports follow a common framework for the measurement, reporting and reduction of their carbon emissions with the possibility of becoming carbon neutral. It assesses and recognizes efforts by airports to reduce their GHG (CO₂) emissions initially within their direct control. It is specifically designed to ensure that suitable management processes are in place that will enable reductions to be identified and that reductions are achieved.
- The programme publically recognizes participating airports best practice carbon management practices through four progressively difficult levels of accreditation award, each requiring increasing levels of engagement from the airport company and its stakeholders.
- At all levels of accreditation, a commitment to reducing carbon has to be made at the highest level within the airport organisation: an environmental policy committing to energy and carbon reduction, signed off at board level, must be publically available.
- **Airport Carbon Accreditation** has been formally recognised by a number of key international institutional bodies: it is formally endorsed by The European Civil Aviation Conference (ECAC) and EUROCONTROL, as well as being formally supported by The International Civil Aviation Organization (ICAO), and the United Nations Environment Programme (UNEP).
- The programme is based on existing airport practices and internationally recognised standards, and is underpinned by detailed technical guidance which is updated regularly to ensure its continuing relevance. It is site specific in its nature, but also universally applicable to all airports.
- **Airport Carbon Accreditation** is independently administered by WSP Environment and Energy, an international consultancy appointed by ACI Europe to enforce the accreditation criteria for airports and report on programme developments on an annual basis.

1.2 Key features of Airport Carbon Accreditation

Airport Carbon Accreditation has become the industry reference standard for airport carbon mapping and management. The key elements of the programme are:

- Engagement is given at the highest level within an airport to carbon reduction
- Airports set their own emissions reductions targets
- The reporting of CO₂ is mandatory; other greenhouse gases can be reported voluntarily
- The programme is based on the Greenhouse Gas Protocol and ISO 14064-1
- The guidance is adapted to the specific circumstances of airports but is also universal in its ability to be applied
- Applications must be verified by an independent, and approved third-party verifier who meets specific requirements.



Scope 1 & 2 - Emissions from activities which the airport company are directly responsible for

Scope 3 - Emissions from activities which the airport does not directly manage but can guide and influence

An airport can join at any level and may progress through them at its own pace. The requirements at each stage build on those required at the previous level.

Level 1	Level 2	Level 3	Level 3+
<ul style="list-style-type: none"> • Scope 1 & 2 Carbon Footprint • Externally verify footprint • Publicly available policy indicating commitment to energy/carbon reduction 	<ul style="list-style-type: none"> • Scope 1 & 2 Carbon Footprint • Externally verify footprint • Publicly available policy indicating commitment to energy/carbon reduction 	<ul style="list-style-type: none"> • Scope 1 & 2 Carbon Footprint • Externally verify footprint • Publicly available policy indicating commitment to energy/carbon reduction 	<ul style="list-style-type: none"> • Scope 1 & 2 Carbon Footprint • Externally verify footprint • Publicly available policy indicating commitment to energy/carbon reduction
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			<ul style="list-style-type: none"> • Provide evidence that residual Scope 1 & 2 emissions have been offset

1.3 Benefits of Airport Carbon Accreditation

The benefits of participation in the **Airport Carbon Accreditation** programme fall broadly into two categories: measurable (hard benefits) and non-measurable (soft benefits).

HARD BENEFITS

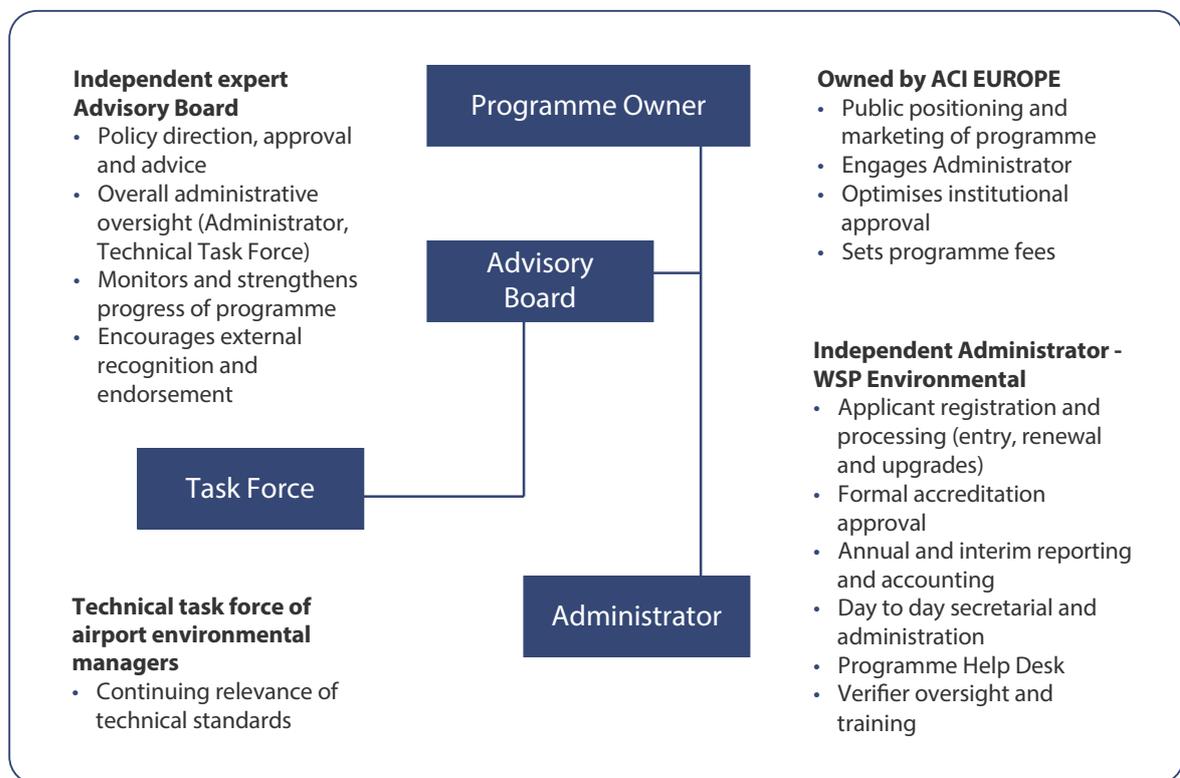
- Improves operational efficiency by incentivising innovative activity to reduce energy use
- Energy is saved through the implementation of carbon reduction initiatives, thereby reducing costs across those activities under the airports direct control
- Knowledge sharing of best-practice carbon management is facilitated by the programme
- In meeting the requirements at each level, a clear understanding of emissions sources is developed, enabling the airport to identify priority areas for emissions reduction
- Data is collected which helps to support the development of a business case for emissions reduction initiatives for sources under the airports direct control
- Adoption of a systematic approach to carbon management ensures that information and data are managed in an efficient way
- Collaborative engagement with stakeholders helps the airport and its stakeholders move to a more strategic and comprehensive approach to carbon management
- Can help secure licence to grow and development consents through alignment with emissions requirements of local planning conditions
- Increased shareholder value, brand reputation and stakeholder support

SOFT BENEFITS

- Increases an airport's credibility by sending an early signal that it is addressing the climate change agenda
- Promotes dialogue between airport personnel and departments on issues relating to CO₂ emissions
- Supports dialogue with stakeholders on reduction in emissions from sources that an airport can guide and influence
- Enhances public image of airport by differentiating it as a leader in the field of carbon management and improving community relations
- Reduced regulatory and litigation risks and enhanced planning and regulatory approvals
- Airport sets its own carbon reduction agenda
- Enhanced profile from early action against background that the airport sector's contribution to the global aviation footprint is 5%.

1.4 Management of Airport Carbon Accreditation

- As the programme owner, ACI EUROPE has appointed WSP Environment and Energy as the Administrator, to assist airports with their participation and to ensure the smooth running of the programme. The programme is overseen by an independent Advisory Board comprised of independent experts from the fields of aviation and the environment, including from the institutions that have endorsed the programme. It met twice during Year 4, in December 2012 and May 2013.
- In addition, a technical Task Force, comprised of airport environmental managers from a selection of participating airports, meets regularly to discuss technical issues arising during the accreditation process and to ensure that the programme guidance remains relevant.

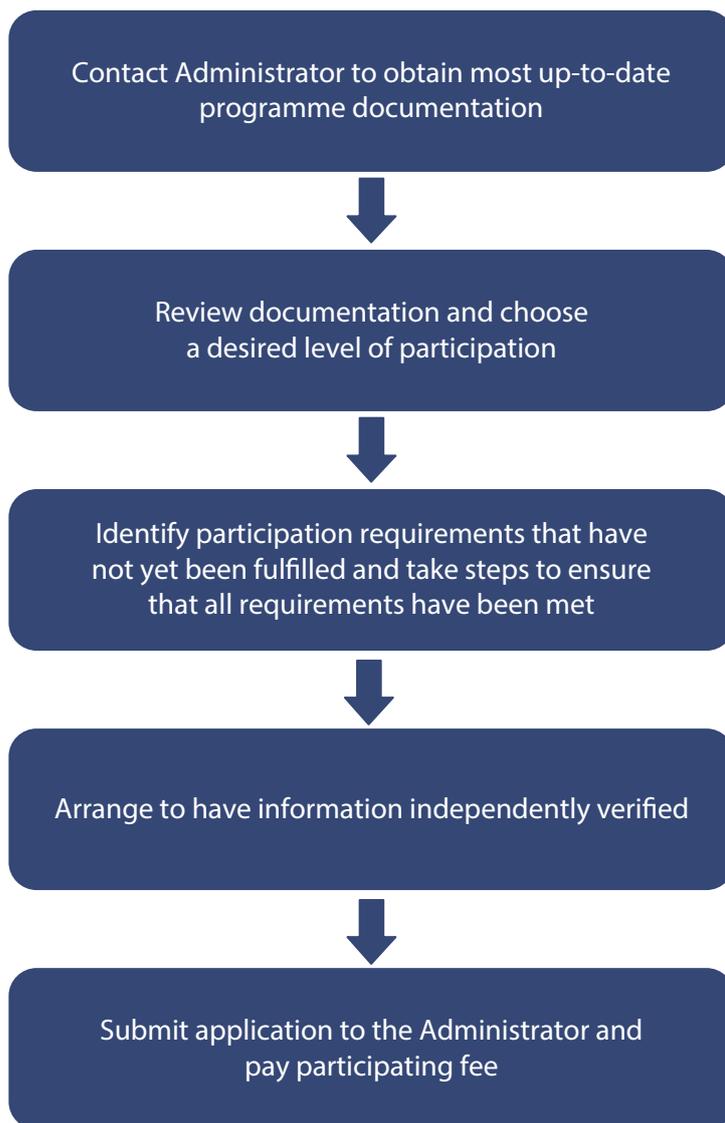


The Advisory Board membership is comprised of:

- Mr Patrick Gandil, ECAC Focal Point for Environment (European Civil Aviation Conference)
- Mrs Martina Otto, Head of the Energy and Policy Unit – Energy Branch, UNEP (United Nations Environment Programme)
- Mr Matthew Baldwin, Director of Air Transport (DG MOVE), European Commission
- Mr Damien Meadows, Adviser to the Director (Directorate B), DG Climate Action
- Professor Callum Thomas, Professor of Sustainable Aviation, Manchester Metropolitan University
- Mr Tim Johnson, Director Aviation Environment Federation
- Focal Point: Ms Jane Hupe, Head of Environment ICAO

1.5 How to obtain Airport Carbon Accreditation

- Any airport wishing to join the 84 airports that have already been accredited should take the course of action set out below.
- Airports are encouraged to have a continuous dialogue with the **Airport Carbon Accreditation** Administrator during this process to ensure that information is prepared correctly and in line with the minimum programme requirements.

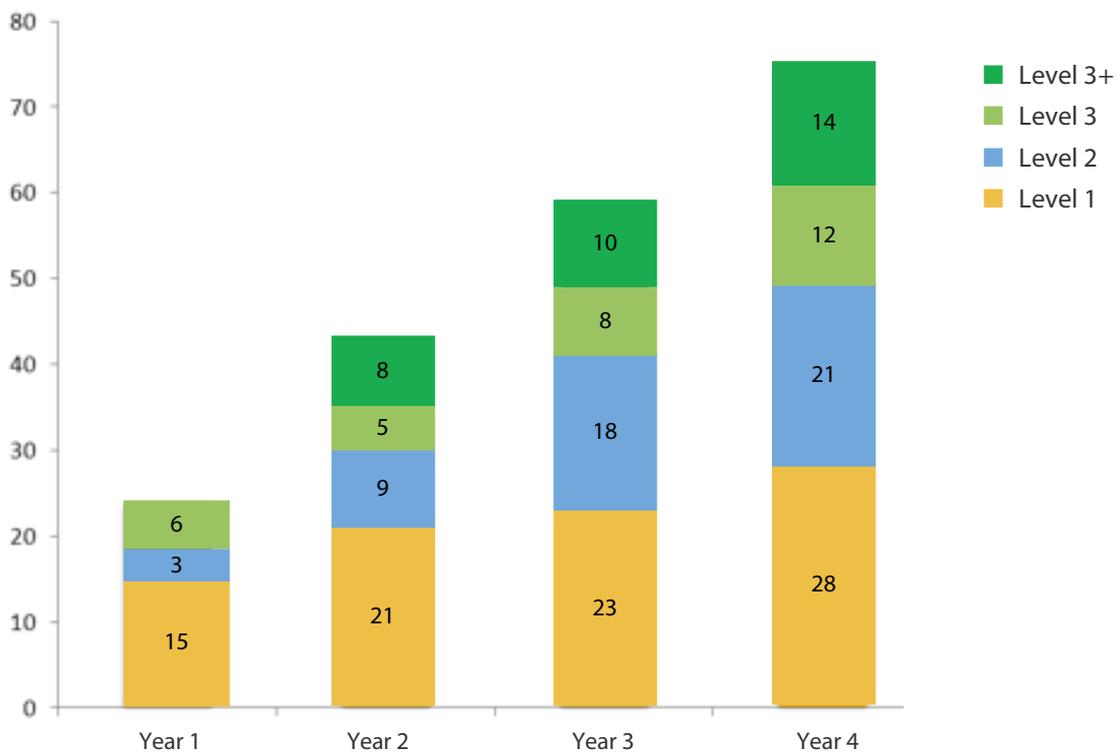


- Once all documentation has been submitted and the participation fee received, the programme Administrator will process the application according to its standard operating procedures and notify the airport of any additional requirements within one week.
- Once the programme Administrator is satisfied that the minimum **Airport Carbon Accreditation** requirements for the level of application have been met, certification will be issued.

2 Participation

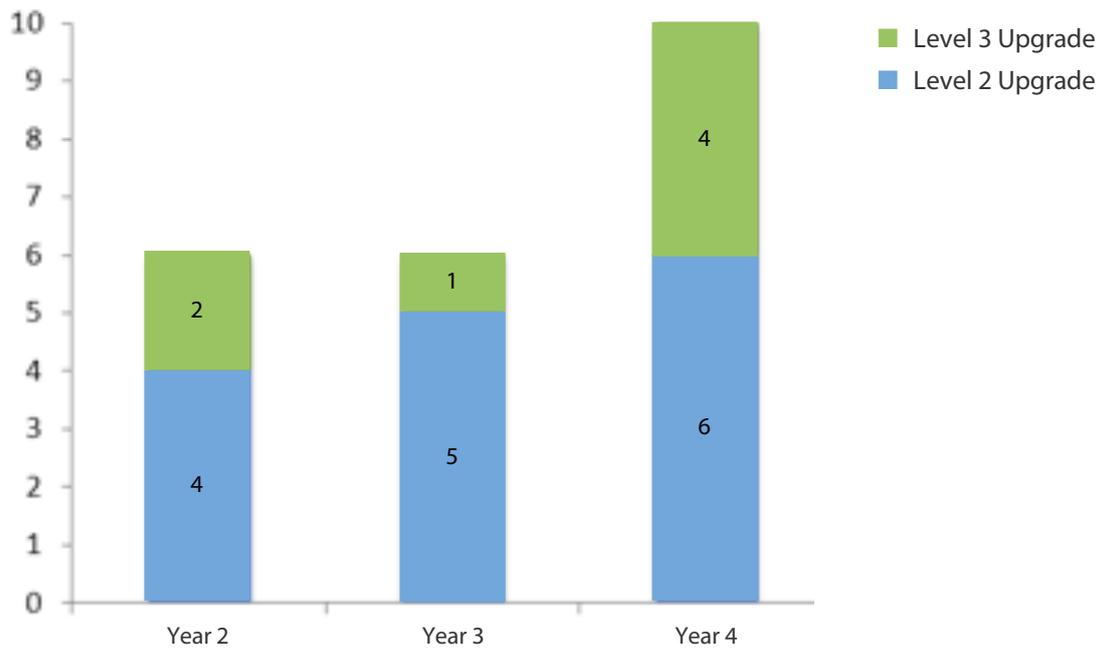
2.1 ACI EUROPE

	2011-2012	2012-2013
Number of airports	59	75
Percentage of European air traffic	52.8%	58.6%



Accredited airports in Europe

- Year-on-year programme growth remained strong this year in Europe, with a net increase of 16 airports for the second year running.
- Dresden and Leipzig Airports were new entrants to the programme but left after only 6 months as they chose not to renew their membership with ACI Europe and therefore were no longer eligible to be a part of the programme.
- All airports in the programme in 2011-2012 either renewed at the same level or upgraded.
- New entrants to the programme include two AENA Airports; Palma de Mallorca and Malaga, Rome Ciampino, Lyon Airport, Le Bourget (Aeroports de Paris), Koln-Bonn, London City, 4 Swedavia Airports; Kiruna, Lulea, Ronneby and Visby, ANA-Beja, Tallinn Airport, Tirana Airport, Vienna Airport and Zagreb Airport.

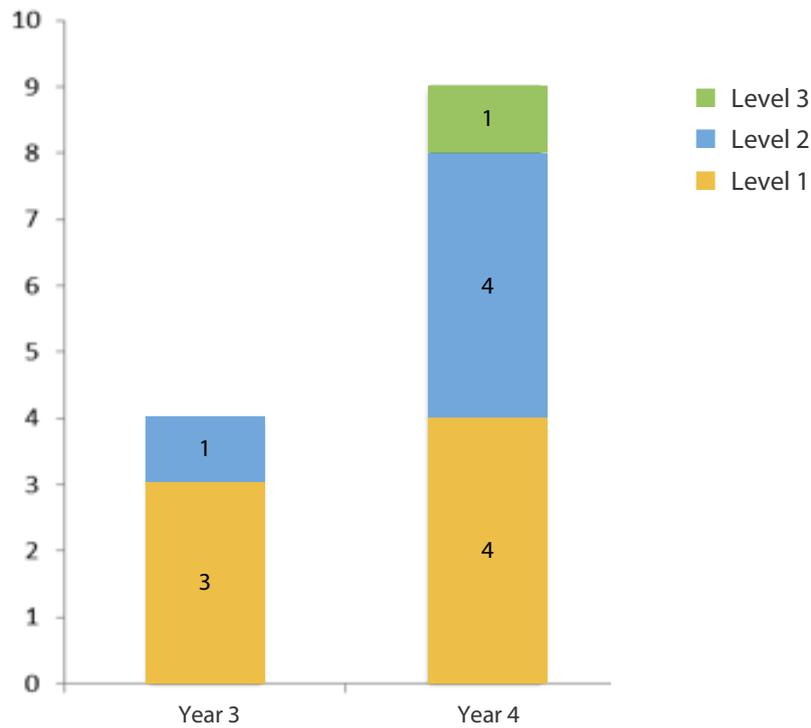


Upgrades in Europe

- There was growth in the number of upgrades with 10 airports upgrading to a higher level of engagement.
- Airports that have moved up a participation level this year are; Antalya, Brussels, Shannon, Dusseldorf, Helsinki, Nice, Prague, Istanbul and two Paris Airports, Charles de Gaulle and Orly.
- 50 airports remained accredited at the same level
- There were no airport downgrades

2.2 ACI ASIA PACIFIC

	2011-2012	2012-2013
Number of airports	4	9
Percentage of Asia Pacific air traffic	6%	15%



Accreditation in Asia-Pacific

- **Airport Carbon Accreditation** was extended to the Asia-Pacific region in November 2011 in collaboration with ACI Asia-Pacific.
- 9 airports in the ACI Asia-Pacific region have now been accredited.
- Abu Dhabi was the first airport to be carbon accredited at Level 1 in November 2011 at the programme launch in ACI Asia-Pacific.
- Mumbai has upgraded to Level 2, Bangalore has renewed its Level 2 accreditation and Singapore Changi Airports has renewed at Level 1. Bangkok and Amman Airport have joined the programme at Level 1, Delhi and Hyderabad have joined at Level 2 and Hong Kong has joined the programme to be the first airport in the Asia-Pacific region to be accredited at Level 3. Adelaide Airport has announced that it is seeking accreditation at Level 1, being the first Australian airport to do so.
- Interest in the programme from other Asia-Pacific airports is increasing and it is anticipated that new accreditations will follow in the coming year.

3 Carbon Performance of Accredited Airports

3.1 Aggregate carbon footprint and emissions reduction figures

This section outlines the aggregate carbon (CO₂) footprint and reduction figures achieved by the airports listed above. These figures derive from individual airports' applications, as verified externally according to **Airport Carbon Accreditation** requirements. European and Asia-Pacific emissions are reported separately.

Every attempt has been made to provide an accurate quantification of the actual emissions reductions achieved, with emissions compared on a like-for-like basis against a three year rolling average of emissions. Whilst this data is presented in aggregate format, it is worth noting that there are a number of reasons why direct comparisons between individual airports, and between reporting years, are not possible. These issues include:

- Newly accredited airports may not have three years of historical data available. The programme therefore recognises that until such data is available, airports can measure reductions against either one or two years of data.
- Operating conditions of each airport differ significantly due to the varying ownership structures and activity scopes. As **Airport Carbon Accreditation** requires participants to report on emissions from sources under the airports direct control, each airport's operational boundary is unique to that airport.
- Reductions must be achieved on a like-for-like basis, meaning that new facilities at airports may not be included in the operational boundary for the purposes of demonstrating a reduction in emissions.
- The use of the three year rolling average means that it is not possible to aggregate the total emissions reductions between years, as this will lead to the double counting of some emissions reduction.

Under the terms and conditions of participation in **Airport Carbon Accreditation**, the details of airports' individual carbon footprints are not published here, although an airport may choose to do so itself.

Airport Carbon Accreditation requires that airports report on CO₂ emissions only. Under the programme, airports may report voluntarily on other greenhouse gases, and this is considered as best practice.

The reductions achieved by the airports participating in **Airport Carbon Accreditation** are genuine quantified reductions in CO₂ emissions achieved when comparing emissions on a like-for-like basis, despite traffic trends. They show a general downward trend and should be regarded as quantified and qualitative evidence of improved carbon management practices by the airports concerned. The aggregated emissions from all participants together with their supporting data has been examined and approved by the Advisory Board and are presented below.

3.2 European performance

3.2.1 EMISSIONS REDUCTION HIGHLIGHTS

	2011-2012	2012-2013
Total aggregate Scope 1 & 2 reduction (tCO ₂)	48,676	140,009
Total aggregate Scope 3 reduction (tCO ₂)	365,528	30,155

3.2.2 EMISSIONS PERFORMANCE SUMMARY

Variable	2011-2012		2012-2013	
	Emissions	Number of Airports	Emissions	Number of Airports
TOTAL SCOPE 1 AND 2 EMISSIONS				
Aggregate carbon footprint for 'year 0' ¹ for emissions under airports' direct control (all airports)	2,514,947 tCO ₂	59	2,553,869 tCO ₂	75
Carbon footprint per passenger	3.22 kgCO ₂		2.75 kgCO ₂	
SCOPE 1 AND 2 EMISSIONS REDUCTION²				
Aggregate reduction in emissions from sources under airports' direct control (Level 2 and above)	48,676 tCO ₂	23	140,009 tCO ₂	43
Carbon footprint per passenger	0.08 kgCO ₂		0.19 kgCO ₂	
TOTAL SCOPE 3 EMISSIONS³				
Total carbon footprint for 'year 0' for emissions sources which an airport may guide or influence (level 3 and above)	8,299,743 tCO ₂	13	12,176,083 tCO ₂	26
SCOPE 3 EMISSIONS REDUCTION				
Aggregate reductions from emissions sources which an airport may guide or influence	365,528 tCO ₂	10	30,155 tCO ₂	26
TOTAL EMISSIONS OFFSET				
Total emissions offset (Level 3+)	79,964 tCO ₂	8	66,724 tCO ₂	15

1. 'Year 0' refers to the 12 month period for which an individual airport's carbon footprint refers to, which according to the Airport Carbon Accreditation requirements must have been within 12 months of the application date.

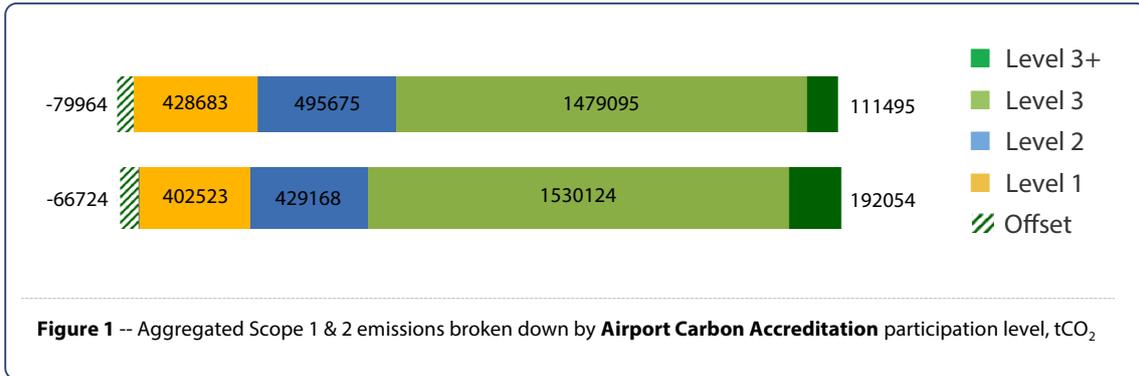
2. Figure includes increases in emissions at airports that have used a relative emissions benchmark in order to demonstrate a reduction.

3. These emissions sources are those detailed in the guidance document, plus any other sources that an airport may wish to include.

3.2.3 SCOPE 1 AND 2 EMISSIONS

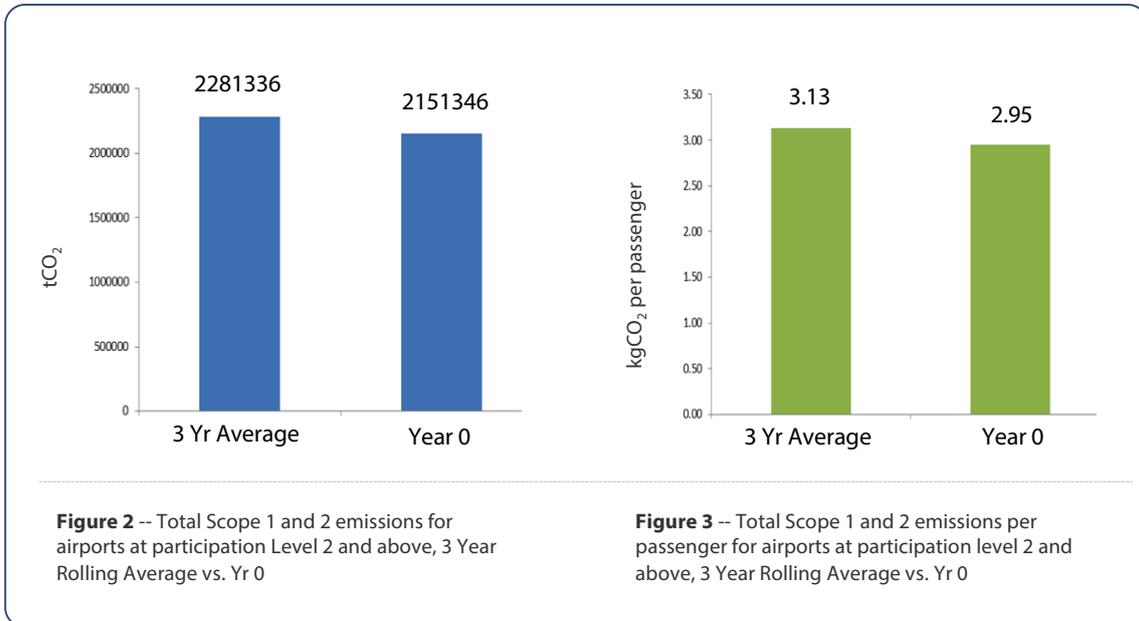
All levels

The graph below compares the total Scope 1 and 2 emissions reported through **Airport Carbon Accreditation** in Year 2 and Year 3 of the programme. For the reasons described in Section 3.1 above, and because last years' dataset has been revised in a number of instances, the two years are not directly comparable, but it does give an indication of the growth in emissions reported through the programme.



Level 2 and above

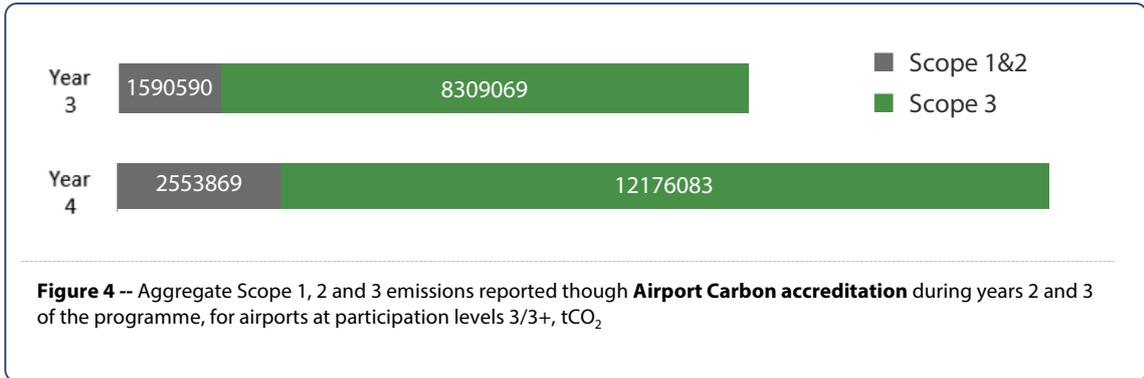
The graphs below show the performance of those airports at Level 2 and above of the programme, i.e. those which have to demonstrate a reduction to achieve accreditation. As mentioned previously, emissions reductions are required to be demonstrated relative to a three-year rolling average. 'Year 0' refers to the current reporting year, in this case, Year 3 of the **Airport Carbon Accreditation** programme.



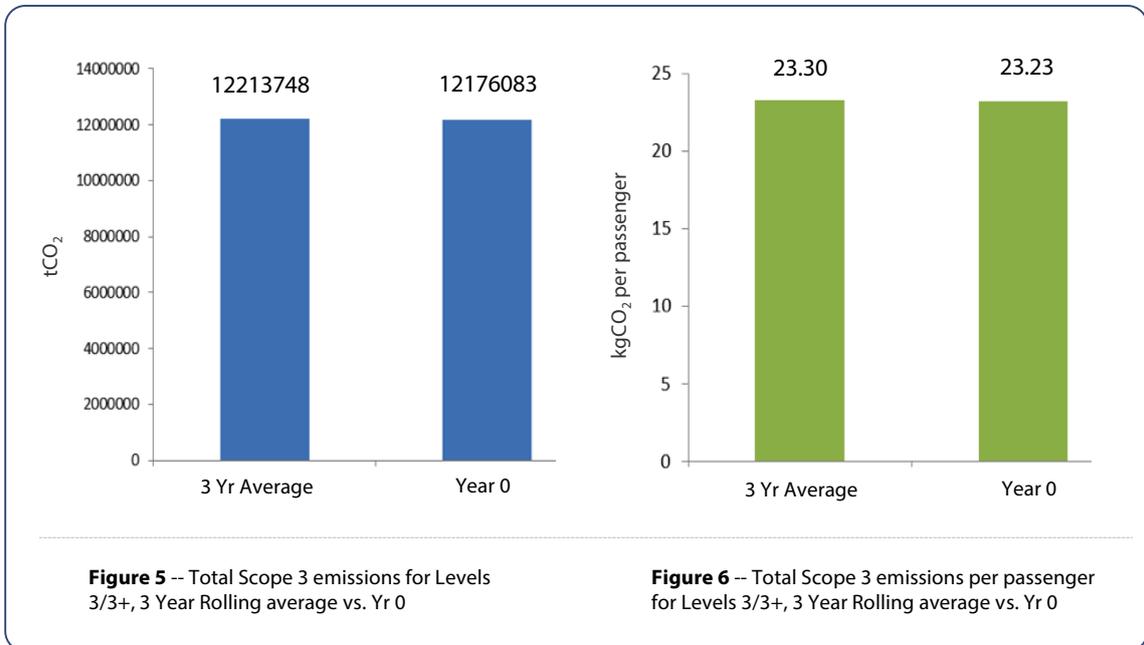
Absolute Scope 1 and 2 Emissions Reduction	140,009 tCO ₂
% Reduction in emissions per passenger	6.5%

3.2.4 SCOPE 3 EMISSIONS

Scope 3 emissions are only reported at Levels 3/3+ of the programme, and include a number of minimum emissions sources, such as the Landing Take-Off cycle and staff business travel, however airports can report any other emissions they wish to in this category, for example from offsite waste disposal and in-flight emissions. The graph below shows the aggregate Scope 3 emissions that were reported through **Airport Carbon Accreditation** in Year 2 and Year 3 of the programme for airports at Levels 3/3+. The Scope 1 & 2 emissions for those airports are also shown to give an idea of the relative size of the Scope 3 emissions.

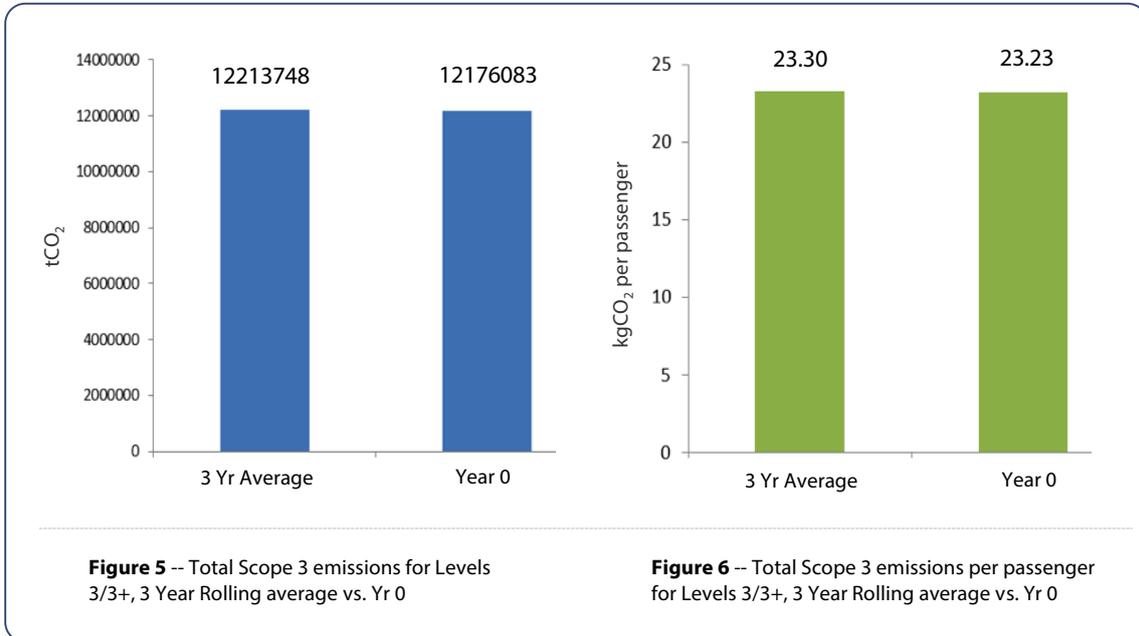


Demonstrating a reduction in Scope 3 emissions is not a requirement for accreditation at Levels 3 and 3+, however the graphs below show that airports are using their ability to guide and influence these emissions to drive reductions in this area as well, both in absolute and per passenger terms relative to the three-year rolling average. Again, Year 0 refers to the current reporting year, i.e. Year 3 of the **Airport Carbon Accreditation** programme.



Scope 3 Emissions Reduction	30,155 tCO ₂
% Reduction in emissions per passenger	0.0058%

Demonstrating a reduction in Scope 3 emissions is not a requirement for accreditation at Levels 3 and 3+, however the graphs below show that airports are using their ability to guide and influence these emissions to drive reductions in this area as well, both in absolute and per passenger terms relative to the three-year rolling average. Again, Year 0 refers to the current reporting year, i.e. Year 3 of the **Airport Carbon Accreditation** programme.



Scope 3 Emissions Reduction	30,155 tCO ₂
% Reduction in emissions per passenger	0.0058%

3.3 Asia-Pacific performance

3.3.1 HIGHLIGHTS

Since its launch in Asia-Pacific in November 2011, four airports have become accredited, with three airports joining at Level 1, and one airport, Bangalore, joining at Level 2. As the programme has not fully developed yet in this region, it is not yet possible to report carbon reductions as above. The aggregate footprint figures for Scopes 1 & 2 are presented below, to be built upon as more airports join the programme in the region in the coming year.

	2011-2012	2012-2013
Total Scope 1 and 2 Emissions	497,249 tCO ₂	984,886 tCO ₂
Carbon footprint per passenger	4.95 kgCO ₂ /pax	3.91 kgCO ₂ /pax

4 Case studies

This section illustrates some of the work that participating airports are doing in the field of carbon management, as well as some of the experiences of the accreditation process. Five examples are provided here from airports at a range of levels and geographies. An historical set of case studies is available on the programme website, supporting the process of information exchange that has been established already.

4.1 Becoming the first Asia-Pacific airport to be accredited at Level 2 Reduction



Bangalore International Airport Limited (BIAL) is the third busiest airport in India handling over 12 million passengers (2011-12). It is estimated that this will grow to more than 15 million by 2015. Being proactive, the four year old airport has already undertaken expansion work to increase its capacity to 20 million passengers per annum, aiming to do so in a carbon-efficient manner. It was the first airport in the ACI Asia-Pacific region to become accredited at Level 2 Reduction.

THE DRIVERS FOR BECOMING ACCREDITED

BIAL has always been committed to sustainable development and reducing the impact of its operations on the environment. With the steep increase in air travel underway in India, BIAL understands that clear and measurable steps must be taken by all stakeholders to reduce the aviation industry's carbon footprint. BIAL recognised that **Airport Carbon Accreditation** is an important part of this industry response and has the added benefits of helping to realise cost savings from energy reduction, as well as improving the public image of the airport and the sector. BIAL also recently won the Golden Peacock Award in appreciation of its commitment to environment and it has been certified under the ISO 14001:2004, ISO 9001:2008, OHSAS 18001:2007 for the last three years. In addition it recently received the ISO 50001:2011 certification for its Energy Management System.

THE JOURNEY TOWARDS ACCREDITATION

BIAL has monitored its energy consumption since its opening in May 2008. In the year 2011-12, it carried out its first carbon footprint keeping the base year of 2008-09. The carbon footprint data of year -3 (2008-09) and year zero (2011-12) were verified by an external agency as per the requirements of **Airport Carbon Accreditation**. BIAL thus got Airport Carbon Accredited at Level 2 Reduction, becoming the first ACI Asia-Pacific member airport to do so.

Some simple measures adopted by the Airport to minimise and monitor energy usage include maintaining a power factor above 0.98 continuously, replacement of standard lighting with LED light, use of natural light in day hours, and the installation of occupancy sensors in various locations. This innovative approach and the drive to build environmental consciousness among employees and stakeholders has helped BIAL reduce its carbon footprint significantly since its opening in 2008.

EMPLOYEE ENGAGEMENT

The involvement of employees from across the organisation has made this success possible, due to the fact that the majority of ideas for energy conservation came from the employees themselves. Members from departments with significant energy use were trained to conduct internal energy audits. Awareness education on energy efficiency, our carbon footprint and resource management to all employees including contractual staff has been disseminated through regular training and awareness campaigns, which has helped increase team motivation and get all employees engaged in the process.

THE FUTURE

The **Airport Carbon Accreditation** of Level 2 has brought Bangalore International Airport Limited the international recognition for its efforts and has further motivated the young airport to benchmark itself amongst the best in the world. The team is actively exploring the scope of renewable energy sources at airports and aims to soon upgrade its accreditation to Level 3.

ADOPTING BEST PRACTICE

“As a responsible airport, Bangalore International Airport Limited accords high priority to protect the environment and conservation of natural resources. Our approach to sustainability incorporates understanding and learning from experience and to progressively develop capabilities to respond according to industry best practice. We are committed towards adopting best practices and set similar benchmarks across all functions at the Airport”.

Mr. G. V. Sanjay Reddy, Managing Director, BIAL

4.2 Going beyond compliance at Tirana Airport



Tirana International Airport

Nënë Tereza

Tirana International Airport (TIA) aims to provide Albania with a world-class international gateway through optimising operations and creating one of the country's most modern infrastructure facilities. More than 1.5 million passengers passed through Tirana International Airport in 2012 and it is one of the most recent airports to become Accredited at Level 1 Mapping.

COMMITTED TO ENVIRONMENTAL PROTECTION AND SOCIAL RESPONSIBILITY

Tirana International Airport (TIA) has set out quality, energy and environmental, health and safety policies and programs and has undertaken all measures to meet its commitment towards customers, employees, community, stakeholders etc. TIA, being fully aware of its social responsibilities, has been committed to operate as environmentally friendly as possible and at the same to contribute to the wellbeing of the local communities around the airport.

ACCREDITATION AND BEYOND

In response to the climate change initiative **Airport Carbon Accreditation**, initiated by the international airport's association ACI, TIA assessed and calculated the carbon footprint of CO₂ emissions for Tirana International Airport in compliance with the ACI Europe's **Airport Carbon Accreditation** Scheme, Level 1 "Mapping" and the Greenhouse Gas Protocol. In January 2013, Tirana International Airport became Airport Carbon Accredited at the "Mapping" level. Furthermore, TIA is committed to use its best endeavours to reach next levels Reduction, Optimisation and Neutrality in the years to come.

This is not only an isolated response to the climate change initiative, **Airport Carbon Accreditation** aiming to gain public recognition for the achievements and milestones reached by the airport in development of management practices to reduce carbon emissions. This is result of TIA's efforts as well, aiming at sustainable use of resources, energy efficiency optimization and cost reduction.

TIA started in 2011 an Energy Saving Project in cooperation with HOCHTIEF Airport, while in May 2012, TIA set up an Energy Policy aiming at energy efficiency, energy saving and reduction of carbon emissions. An Energy Management System orientated towards ISO 50001 and based on continuous improvement of energy efficiency and carbon reduction is being implemented by TIA. The aim of TIA is to decrease operational costs and energy consumption per passenger and decrease negative impacts on the airport's environment and surrounding in compliance with its Energy Policy.

STAKEHOLDER CONFIDENCE

Airport Carbon Accreditation has helped TIA to gain public recognition of the achievements and milestones reached by the airport in the development of management practices to reduce carbon emissions. TIA has also directed its efforts at the sustainable use of resources, energy efficiency optimization and cost reduction. TIA started in 2011 an Energy Saving Project in cooperation with HOCHTIEF Airport, while in May 2012, TIA set up an Energy Policy aiming at energy efficiency, energy saving and reduction of carbon emissions. An Energy Management System orientated towards ISO 50001 and based on continuous improvement of energy efficiency and carbon reduction is being implemented by TIA. The aim of TIA is to decrease operational costs and energy consumption per passenger and decrease negative impacts on the airport's environment and surrounding in compliance with its Energy Policy. Such achievements give our customers, stakeholders and third parties more confidence and are testimony of TIA's commitment to saving energy and reducing greenhouse gas emissions.

TIA is aware that the results achieved so far and the future actions foreseen can continue to be successfully implemented only through a participatory approach and definition of clear responsibilities for all parties involved.

THE WIDER IMPACT OF AIRPORT CARBON ACCREDITATION

Airport Carbon Accreditation is received very positively in the frame of the efforts the Government of Albania is doing to strengthening the Albania's approach to climate action by developing/implementing the National Climate Change Strategy in line with the EU one, with specific objectives to also (i) building/strengthening the capacities of business and community through providing the information and tools needed to support sound decision making to better address climate change mitigation; (ii) promoting the cross-sectoral climate co-operation, including in the fields such as energy and transport; (iii) supporting the harmonization of the EU related directives in the area of climate change, notably the (a) Greenhouse Gas Monitoring and Reporting, (b) EU Emissions Trading System, and (c) Effort Sharing; and (iv) Creating an enabling regulatory environment, skills and capacity among industry professionals to introduce energy efficiency measures as a way to mitigate climate change. To this regard, the TIA efforts are quoted as a very good example for the other businesses in Albania. What is achieved so far is also recognized in line with the National Action Plan on Energy Efficiency (approved by a Governmental Decree in September 2011) and the Albanian Policy Paper for Carbon Finance (published in November, 2009).

THE FUTURE

"In January 2013, Tirana International Airport (TIA) became carbon accredited at the Mapping level. Such initiatives give our customers, stakeholders and third parties more confidence, and are testimony of Tirana International Airport's commitments to save energy and reduce greenhouse gas emissions. We are proud of it. The Airport aims to address the challenges of climate change by assessing and in the next stage by reducing carbon emissions from its operations. The ultimate goal is to becoming carbon neutral - a challenge for which we will do our very best"

Mrs Andrea Gebbeken, CEO of Tirana International Airport

4.3 The first airport group to go carbon neutral



Swedavia is a state owned company that operated 11 airports during 2012. The company's task is, however, to operate the ten airports included in Sweden's national basic infrastructure. The ten airports range in size, with Stockholm Arlanda being the busiest, with almost 20 million passengers, and Kiruna being the smallest, with 198,000 passengers. In 2012 Swedavia became the first group to have all its ten airports certified at Level 3+, Neutrality.

MOTIVATION FOR ACHIEVING CARBON NEUTRALITY FOR THE WHOLE GROUP

Airport Carbon Accreditation is of high priority for Swedavia's management, both on a corporate level and within the airport management itself. Swedavia's corporate goal is to reach zero net emissions of carbon dioxide in 2020. This requires local engagement throughout the whole company. Using **Airport Carbon Accreditation** as a label and as a trade mark has been very useful when communicating this strategy across the business. Also, since Swedavia has calculated its carbon dioxide emissions since 2003, it was a natural step for the company to join the **Airport Carbon Accreditation** programme.

LEARNING FROM EARLY EXPERIENCES

Certification of the first airports, starting with Stockholm Arlanda in 2009, gained experiences the remaining airports could benefit from. During the first half of 2012 there was an intense drive to ensure the certification of the last five airports. Two project managers were dedicated to work on the certification of the five airports simultaneously, which gave gains measured in experience and effectiveness, new simplified routines and new insights into the external verification of application. The project was intense but successful thanks to the level of acceptance and support within the corporate and airport management, communicative activities and the two project managers – one focusing on the communication and the other focusing on the application process.

AIRPORT CARBON ACCREDITATION AS A TOOL FOR COMMUNICATION AND ENERGY REDUCTION

Maintaining Swedavia's **Airport Carbon Accreditation** is one of the key aspects included in decision makings having an effect on carbon dioxide emissions. Swedavia is determined to maintain its **Airport Carbon Accreditation** at the highest level for all ten airports. Having a structured way to work on emissions reductions allows regular dialogue on the issue. In addition, having an international standard gives clarity and emphasis to our external stakeholders concerning the work being done at the airports. When Swedavia succeeded in having all its ten airports certified according to ACA, ACI Europe and the Swedish Minister for the Environment, Lena Ek, joined the celebration at Stockholm Arlanda Airport.

THE BENEFITS OF PARTICIPATION

The most critical benefit that Swedavia derives from its certification is the increased long-term acceptance in society towards aviation. This allows Swedavia to develop its business and ensures its "licence to fly". In addition, **Airport Carbon Accreditation** has given a recognisable name to Swedavia's ambitions in the area of climate change, which has made it easier to communicate and create acceptance for various different activities.

Saving energy is the part of this work that has, so far, generated the biggest financial benefits for Swedavia, although many of these actions would have taken place even without ACA. The same applies to the savings connected to eco-driving. Swedavia has made inventories of the vehicle parks at the airports and reduced the number of vehicles over a longer period of time. In addition, older vehicles have been replaced by newer models with higher fuel efficiency.

The process of carrying out the **Airport Carbon Accreditation** application has helped to compile and validate all the work carried out by employees to engage stakeholders. The understanding of how this work fits into the overall concept has motivated employees to find new, even more interesting and diverse ways, to engage the stakeholders. This is essential in helping Swedavia to live its vision: Together, we bring the world closer.

THE FUTURE

"As a result of dedicated, long-term efforts, all ten airports in Sweden's national basic infrastructure were certified at the highest level of Airport Carbon Accreditation. We are convinced that the conditions needed for access to Sweden in the long term are strengthened as a result."

Torborg Chetkovich, President and CEO of Swedavia

4.4 The first airport in Asia-Pacific to achieve Level 3 Optimisation



Hong Kong International Airport (HKIA) is one of the world's busiest airports, handling 56.5 million passengers and 4.03 million tonnes of air cargo in 2012. The Airport achieved Level 3 of Airport Carbon Accreditation for the first time in December 2012. This makes HKIA the first airport in the Asia Pacific region to be accredited at Level 3.

DEVELOPING AN AIRPORT-WIDE CARBON PROGRAMME TO ENGAGE STAKEHOLDERS

HKIA considers environmental care as a core principle, not only guiding its daily operations, but also the sustainable development of the Airport. In 2008, the Airport Authority Hong Kong (AA), the management body of HKIA, conducted the first carbon audit which covered all of its owned facilities at the Airport. The success of the first carbon audit led AA to develop an airport-wide carbon programme for HKIA in the following year.

Engagement with stakeholders, including business partners and tenants, is the key component of the airport-wide carbon programme. The Programme can be broadly divided into five major areas:

- **Education** – Workshops and training were organised to brief stakeholders on climate change and carbon audit. Industry experts and local government officials were also invited to share best practices, challenges, trends and local legislation on carbon management.
- **Calculation** – One of the objectives of the airport-wide carbon programme was to develop a carbon footprint for the whole airport. An online carbon audit system was developed in 2011, creating a common platform which allows business partners to calculate, report and share their annual carbon footprints.

- **Review and Verification** – AA has been conducting annual third party verification on its own carbon footprint, as well as reviewing the carbon footprints of its business partners since 2009 to ensure the accuracy of the carbon emission data.

- **Reduction** – The results of the first airport-wide carbon audit helped HKIA to set the baseline carbon footprint and facilitate stakeholders to identify and plan future carbon reduction initiatives. Over 400 carbon reduction initiatives have been developed in HKIA since 2008. Through the collaborative efforts of stakeholders, HKIA made a pledge to reduce its carbon emissions by 25% per workload unit by 2015 from 2008 levels in 2010 – the first airport-wide carbon intensity reduction pledge among airports in the world.

- **Communication** – A designated carbon reduction webpage (<http://www.hongkongairport.com/eng/csr/carbon-reduction/index.html>) has been developed to communicate the details and progress of the airport-wide carbon programme with the community.

MOTIVATION FOR BECOMING ACCREDITED

Drawing from the experience of the airport-wide carbon programme, HKIA has decided to further its environmental performance. In 2012, HKIA made a pledge to be the world's greenest airport. Obtaining **Airport Carbon Accreditation** at Level 3 is a key milestone on path to becoming the world's greenest airport. Not only does this accreditation give recognition to HKIA's carbon reduction efforts, but most importantly, it is a motivation for the whole airport, including AA and its business partners, to achieve a higher level of environmental performance.

THE FUTURE

HKIA will continue its carbon reduction efforts to maintain the Level 3 accreditation to its latest standard requirements and, in the meantime, will explore opportunities for upgrading its accreditation to Level 3+ in the future.

"This accreditation is an important milestone as we pursue environmental excellence and a sustainable future. We hope that the experience we have gained to date will help HKIA continue to be a pioneer in environmental performance around the world."

Dr Marvin Cheung, Chairman of Airport Authority Hong Kong

4.5 Airport Carbon Accreditation at a regional airport



Aéroport Nice Côte d'Azur is a regional airport situated in South-east France and in 2011 the airport handled more than 10 million passengers. Nice Airport became accredited for the first time in year 1 at the mapping level in 2011 and successfully upgraded its accreditation to level 2 in 2012.

MOTIVATION FOR JOINING THE SCHEME

Nice Airport is extremely committed to reducing its environmental impact; it has been engaged in an energy reduction policy for more than five years and has been ISO 14001 certified for almost ten years. This meant the airport was already in a strong position to join the programme and build on the solid foundation of environmental management already in place. In addition, the airport is located in an urban area and is required by the French National Environment Policy to make assessments of the airport's greenhouse gas emissions.

THE PATH TO ACHIEVING REDUCTION

Although achieving accreditation at Mapping level was not a simple task due to the lack of available data, reaching Reduction level was a key accomplishment for Nice Airport. Using ISO 14001 as a base, the Airport has achieved a significant reduction in terms of absolute CO₂ emissions and a 17% reduction in per passenger CO₂ emissions. Nice Airport has made CO₂ emissions per passenger one of the most important key performance indicators for the airport. This demonstrates the importance of the involvement of every airport employee, from technical support to purchasing, and from the design department to operating agents in helping achieve carbon reduction.

LOOKING TO THE FUTURE

Nice Airport aims to achieve carbon neutrality by 2018. On the path to this, the airport plans to utilise green electricity and investigate the options of using other types of renewable energy. In addition, the airport wants to determine the precise impact of meteorological conditions on the airports energy consumption. This will help to verify the effectiveness of the reduction programme.

"Airport Carbon Accreditation is a truly essential tool, because it throws up a host of new questions and challenges regarding our environmental management."

Isabelle Vandrot, Head of Sustainable Development and Environment, Nice Côte d'Azur Airport.

5 Programme developments during Year 4

5.1 Key membership and performance highlights

- In its 4th year of operation, **Airport Carbon Accreditation** continued to grow in both Europe and Asia-Pacific with 22 new airports becoming accredited for the first time. There were also 11 upgrades and 53 renewals. Dresden and Leipzig, two new entrants this year, withdrew from the programme after withdrawing from ACI Europe membership.
- In Asia-Pacific, strong growth was seen particularly in India, where there are now 4 airports accredited. Hong Kong Airport became the first in the region to be accredited at Level 3 Optimisation and the accreditation of Bangkok Airport saw participation rise to 9 airports, or 8.4% of the region's passenger traffic. There was also the upgrade of Mumbai airport and two other renewals.
- In Europe, 16 airports were accredited, increasing the proportion of Europe's passengers passing through accredited airports to 58.6%. Europe also saw its first entire airport group becoming accredited at the highest level, Neutrality. All of Swedavia's 10 airports have now been formally recognised as being carbon neutral, an event which was widely celebrated, including by Sweden's Minister for Environment.
- Having introduced the ability to move to a 3-yearly renewal schedule, Stockholm Arlanda was the first airport to decide to move onto this schedule. This means that Stockholm Arlanda had to provide evidence of on-going stakeholder engagement over the next three years as well as demonstrating a reduction in at least one Scope 3 emissions source for which they have active carbon management policies in place.
- The environmental performance of the programme continued to be strong, with a reduction of 140,009 tCO₂ from airports Scope 1 and 2 emissions. This equates to a 6.5% reduction per passenger.
- At its 9th meeting in February 2013, ICAO's Committee of Aviation Environment Protection (CAEP) noted with interest the development of **Airport Carbon Accreditation** and encouraged those airports that are located in a region where the programme is available, to become accredited.

5.2 Revised requirements for verifiers

In December 2012, the Advisory Board signed off a new policy regarding requirements for verifiers to the programme. This new policy was in response to calls for greater robustness in verification, from both the verification community and the airports themselves. The policy applies to all new and existing verifiers and came into force in January 2013.

The key elements of this new policy are as follows:

- To become an approved verifier for the purpose of the programme, all new verifiers must follow mandatory training provided by the programme Administrator. This is in the form of webinar and associated examination taken within one week of the webinar. New verifiers are considered to be any individuals who have not carried out an **Airport Carbon Accreditation** verification before or within the previous two calendar years prior to a new verification.

- The webinars provide verifiers and interested airports with a greater understanding of the overall programme, the Administrator, airport's and verifier roles in the verification process. They also explain the detailed verification requirements, process and output as well as demonstrating what is NOT required.
- There is a cost to verifiers for the training and examination of €300 per individual verifier. A discount of 15% per person may be available at the discretion of the Administrator where at least 3 verifiers from the same organisation participants carry out training at the same time. Other arrangements also apply and enquiries should be made of the Administrator.
- Training Webinars are run in principle once every 4-6 weeks throughout the year. Details of the upcoming dates are posted on the **Airport Carbon Accreditation** website.
- Approved verifiers are now listed individually and by organisation on the **Airport Carbon Accreditation** website.
- Verifiers who have successfully completed **Airport Carbon Accreditation** verifications within the two years prior to verification, are considered as approved verifiers for the purpose of the programme and are automatically listed on the programme website.
- Full details of the requirements for verifiers can be found on the **Airport Carbon Accreditation** website.
- Since its inception, 20 verifiers have completed the training. Of these, 12 were from the Asia-Pacific region and 8 from Europe. In addition, 16 airport representatives have participated in the webinar either for a refresher in the programme requirements or to learn more with a view to becoming accredited.
- All new verifiers must also provide their credentials for carrying out ISO 14064-3 verifications as well as evidence of any work carried out for airports specifically.

5.3 Ongoing review of Airport Carbon Accreditation requirements and documentation

Changes to the requirements of Airport Carbon Accreditation and therefore the supporting documentation, including those listed above, are summarised in the table below.

ISSUE / DESCRIPTION	RESPONSE
Minimum requirements for Scope 3 reporting	The reporting of energy re-sold or directly consumed by partners/tenants was included in the minimum requirements for Scope 3 reporting for airports at Level 3 and 3+ of the programme.
Phase 2 of the European Union Emissions Trading Scheme (EU ETS) meant that changes occurred in the way Emissions Allowances are allocated, which affected the way that offsets for Airport Carbon Accreditation are calculated	The Guidance Document was updated to explain the changes to the EU ETS and to clarify what the requirements are when an airport is trying to achieve carbon neutrality through the purchase of offsets.

ISSUE / DESCRIPTION	RESPONSE
<p>A number of airports report their emissions data using Degree Day Data adjustments, and this was not accounted for in the Guidance Document.</p>	<p>The Guidance Document was updated to include this methodology as an acceptable way of tracking emissions reductions at an airport.</p>
<p>New requirements for verifiers</p>	<p>The new policy relating to the requirements for verifiers to the programme was included in the Guidance Document.</p>
<p>Consultant Packages.</p>	<p>The Advisory Board determined that consultants should not offer “joint packages” for footprint calculation and third party verification. The airport operator should appoint its verifier absolutely independently from any other stakeholders.</p>
<p>Small Airport LTO emissions. An airport has reported an issue that some of its flights do not enter international air space and the entire flight may be considered as LTO according to the current guidance.</p>	<p>It is agreed that in this case, the airport should use the time-in-mode to calculate the LTO emissions.</p>

6 Looking ahead to Year 5

Over the past four years, **Airport Carbon Accreditation** has become the industry reference standard for airport carbon mapping and management and is now well established across Europe and Asia-Pacific. To ensure that this remains the case, it is critical that participation levels continue to grow during 2013/2014.

ACI EUROPE, ACI ASIA PACIFIC and the Programme Administrator will continue to work with the Advisory Board and airports from Europe and Asia-Pacific to build on the successes of the first four years of **Airport Carbon Accreditation** and to ensure that airports remain accredited in the long term. Key aims for Year 5 include:

- Incorporating new policy, reporting standards and best practice into **Airport Carbon Accreditation**;
- Continuing the training for verifiers to promote a better understanding of the programme and verification requirements;
- The development of an online platform for applications and renewals to be used by both airports and verifiers;
- The extension of the programme into the African region of ACI;
- Making available on an optional use basis a simple carbon calculation tool developed by ACI World and Transport Canada – ACERT – aimed especially at small airports with little or no environmental expertise to help them meet the mapping requirements of Level 1 and Level 2 of the programme.
- The launch of a new **Airport Carbon Accreditation** website.

6.1 Incorporate new policy, reporting standards and best practice into Airport Carbon Accreditation

ACI EUROPE, ACI ASIA PACIFIC, the Programme Administrator and the Advisory Board will continue to ensure that further examples of best practice are incorporated into the programme Guidance, through the maintenance of dialogue with the participating airports, the aviation industry as a whole and policy makers.

6.2 The continuation of verifier training

- In Year 5 of the programme we will continue to provide verifier training
- Interested parties should contact the Administrator

6.3 Extension of Airport Carbon Accreditation to the ACI-AFRICA region

From the start of Year 5, airports in the ACI AFRICA region will be eligible to join **Airport Carbon Accreditation**. This is an exciting development for the programme, and whilst it is not envisaged that there will be hugely strong growth in the first year, the region may prove to be one to watch for the future.

6.4 Development of an online application tool

Airport Carbon Accreditation has recently launched an Online Tool with a simplified and intuitive process for renewals and upgrades, to ease the application process for airport and third party verifiers. The new tool is aimed at making application more accessible, more cost effective and less time-consuming for airports. It will become the only-accepted application system.

The tool can be accessed via www.airportcarbonaccreditation.org or at www.aca-application.org.

PARTICIPATION LIST - EUROPE

LEVEL 1: MAPPING

ORGANISATION	AIRPORT	VERIFIER
ADR	Rome Ciampino (New entry)	Luciano Grugni, TUV Italia Srl *
AENA	Malaga (New entry)	Ignacio Gonzalez Abeytua, AENOR
AENA	Palma de Mallorca (New entry)	Ignacio Gonzalez Abeytua, AENOR
AENA	Barcelona	Jose Magro Gonzales, AENOR
AENA	Lanzarote	Jose Magro Gonzales, AENOR
ANA	Faro	Filipa Rodrigues, KPMG
ANA	Flores	Filipa Rodrigues, KPMG
ANA	Horta	Filipa Rodrigues, KPMG
ANA	Lisbon	Filipa Rodrigues, KPMG
ANA	Porto	Filipa Rodrigues, KPMG
ANA	Ponta Delgada	Filipa Rodrigues, KPMG
ANA	Santa Maria	Filipa Rodrigues, KPMG
ANA	Beja	Filipa Rodrigues, KPMG
Budapest Airport Zrt.	Budapest	Peter Temesvary, ERM Hungary
Dubrovnik Airport	Dubrovnik	Marko Balija, Trames

*These verifiers have participated in the verifier's webinar.

PARTICIPATION LIST - EUROPE

LEVEL 1: MAPPING

ORGANISATION	AIRPORT	VERIFIER
Koeln-Bonn Airport	Koln-Bonn (New entry)	Institut für Umwelt technik Dr. Kühnemann und Partner GmbH
Liege Airport	Liege	Mayta Villafane, DNV Belgium NV
London City Airport	London City (New entry)	Rob Banes, SKM Enviros
Lyon Airport	Lyon (New entry)	El Takriti Sammy & Decq Phillipe, DNV
Tallinn Airport	Tallinn (New entry)	Bryony Karsenbarg, Clouds Environmental Consultancy
TAV	Ankara	I.Bins-Hoefnagels, KEMA Emission Verification Services
TAV	Izmir	Mr Dinesh Shetty, Bureau Veritas Certification (Singapore) Pte Ltd *
Tirana International Airport GmbH	Tirana (New entry)	Dr. Dionysios Giannakopoulos, TUV HELLAS S.A.
Toulouse Airport	Toulouse	Philippe Decg, Det Norske Veritas Belgium NV
Vienna Airport	Vienna (New entry)	Bernd Eisfeld, BFUB CERT
Warsaw Chopin Airport	Warsaw	Institut für Umwelt technik Dr. Kühnemann und Partner GmbH
Zagreb Airport	Zagreb (New entry)	Domagoj Vranjes, Institut IGH

*These verifiers have participated in the verifier's webinar.

PARTICIPATION LIST - EUROPE

LEVEL 2: REDUCTION

ORGANISATION	AIRPORT	VERIFIER
AENA	Madrid-Barajas	Jose Magro Gonzales, AENOR
Aéroports de Paris	Le Bourget (New entry)	Philippe Decq, DNV
Athens Int. Airport	Athens	Dr. Dionysios Giannakopoulos, TUV Hellas
Avinor	Kristiansand	Thomas Haug, DNV
Bologna Guglielmo Marconi Airport	Bologna	Adriana Baffetti, CERMET Scarl
DAA	Cork	Gavin Tivey, Bureau Veritas UK
DAA	Dublin	Gavin Tivey, Bureau Veritas UK
Shannon Airport Authority plc	Shannon (Upgrade)	Nicholas Bollons, Bureau Veritas UK
Flughafen Dusseldorf GmbH	Dusseldorf (Upgrade)	Dr. Stefan Bräker, Muller BBM
Eindhoven Airport	Eindhoven	I.Bins-Hoefnagels, Ir. J. Karsmakers, KEMA Emissions Verification Services B.V.
Finavia Corporation	Helsinki (Upgrade)	Martti Muurinen, Oy Enemi
Finavia Corporation	Enontekio	Martti Muurinen, Oy Enemi
Finavia Corporation	Ivalo	Martti Muurinen, Oy Enemi
Finavia Corporation	Kemi-Tornio	Martti Muurinen, Oy Enemi
Finavia Corporation	Kittila	Martti Muurinen, Oy Enemi

*These verifiers have participated in the verifier's webinar.

PARTICIPATION LIST - EUROPE

LEVEL 2: REDUCTION

ORGANISATION	AIRPORT	VERIFIER
Finavia Corporation	Kuusamo	Martti Muurinen, Oy Enemi
Finavia Corporation	Rovaneimi	Martti Muurinen, Oy Enemi
Hamburg Airport GmbH	Hamburg	Bernd Eisfeld, BFUB CERT GmbH
Nice Cote D'Azur Airport	Nice (Upgrade)	Philippe Decg, DNV
Ruzyne-Prague Airport	Prague (Upgrade)	Mario Voros, DNV
TAG	Farnborough	Greg Nolan, Olive
TAV	Istanbul Ataturk (Upgrade)	Özlem Ünsal, BSI Group Eurasia Belgelendirme Hizmetleri

*These verifiers have participated in the verifier's webinar.

PARTICIPATION LIST - EUROPE

LEVEL 3: OPTIMISATION

ORGANISATION	AIRPORT	VERIFIER
Aeroports de Paris	Charles de Gaulle (Upgrade)	Philippe Decq, DNV
Aeroports de Paris	Orly (Upgrade)	Philippe Decq, DNV
Areoporti di Roma	Rome Fiumicino	Luciano Grugni, TUV Italia *
Antalya Airport	Antalya (Upgrade)	Mr Dominic Maurice, Clouds Environmental Services
BAA Heathrow	London Heathrow	John Pepper, DNV
Brussels Airport	Brussels (Upgrade)	Gert Hendrickx, ESSET Energy Systems bvba
Fraport AG	Frankfurt	Institut für Umwelt technik Dr. Kühnemann und Partner GmbH
Geneve Aeroport	Geneva	Institut für Umwelt technik Dr. Kühnemann und Partner GmbH
Manchester Airport Group	Manchester	Ian Hargreaves , Carbon Trust UK
Munich Airport GmbH	Munich	Mr. Dr. Reiner Beer, Intechnica
Schiphol Group	Schiphol	I.Bins-Hoefnagels, KEMA
Zurich Airport AG	Zurich	Institut für Umwelt technik Dr. Kühnemann und Partner GmbH

*These verifiers have participated in the verifier's webinar.

PARTICIPATION LIST - EUROPE

LEVEL 3+: NEUTRALITY

ORGANISATION	AIRPORT	VERIFIER
Avinor	Oslo	Thomas Haug, DNV
Avinor	Trondheim	Thomas Haug, DNV
SEA Milan	Linate	Luciano Grugni, TUV Sud *
SEA Milan	Malpensa	Luciano Grugni, TUV Sud *
Swedavia	Are Ostersund	Seppo Helander, Bureau Veritas Sweden
Swedavia	Gothenburg	Seppo Helander, Bureau Veritas Sweden
Swedavia	Kiruna (New entry)	Seppo Helander, Bureau Veritas Sweden
Swedavia	Lulea (New entry)	Seppo Helander, Bureau Veritas Sweden
Swedavia	Malmö	Seppo Helander, Bureau Veritas Sweden
Swedavia	Ronneby (New entry)	Seppo Helander, Bureau Veritas Sweden
Swedavia	Stockholm-Arlanda	Seppo Helander, Bureau Veritas Sweden
Swedavia	Stockholm-Bromma	Seppo Helander, Bureau Veritas Sweden
Swedavia	Umeå	Seppo Helander, Bureau Veritas Sweden
Swedavia	Visby (New entry)	Seppo Helander, Bureau Veritas Sweden

*These verifiers have participated in the verifier's webinar.

PARTICIPATION LIST - ASIA-PACIFIC

LEVEL 1: MAPPING

ORGANISATION	AIRPORT	VERIFIER
ADAC	Abu Dhabi	Mr Dominic Maurice, Clouds Environmental Services
Bangkok Suvarnabhumi	Bangkok (New entry)	Mr Dinesh Shetty, Bureau Veritas Singapore *
Changi Airport Group (S) Pte Ltd	Singapore Changi Airport	Mr Dinesh Shetty, Bureau Veritas Singapore *
Queen Alia International Airport	Queen Alia Airport (New entry)	Bryony Karsenbarg, Clouds Environmental Consultancy

LEVEL 2: REDUCTION

ORGANISATION	AIRPORT	VERIFIER
Bangalore Int. Airport Limited	Bangalore	Santhosh Jayaram, DNV
Mumbai	Mumbai Airport (Upgrade)	Mr Dinesh Shetty, Bureau Veritas Singapore *
Hyderabad	Hyderabad Airport (New entry)	Mr Dinesh Shetty, Bureau Veritas Singapore *
Delhi	Delhi Airport (New entry) S	Santhosh Jayaram, DNV

LEVEL 3: OPTIMISATION

ORGANISATION	AIRPORT	VERIFIER
Hong Kong	Hong Kong (New entry)	Conan Lee & Jenny Law, SGS Hong Kong Ltd

*These verifiers have participated in the verifier's webinar.

Airport Carbon Accreditation has received formal endorsement From the European Civil Aviation Conference (ECAC) and the European Organisation for the Safety of Air Navigation (EUROCONTROL)



To find out more about **Airport Carbon Accreditation**, including an up-to-the-minute list of participating airports, please visit our website at:

www.airportcarbonaccreditation.org

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