



# Global Sustainable Aviation Summit Bulletin

## A Summary Report of the 2015 Global Sustainable Aviation Summit

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GLOBAL  
SUSTAINABLE  
AVIATION  
SUMMIT



# 2015

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### SUMMARY OF THE GLOBAL SUSTAINABLE AVIATION SUMMIT 2015: 29-30 SEPTEMBER 2015

The Eighth Global Sustainable Aviation Summit convened from 29-30 September 2015, in Geneva, Switzerland, to discuss ways of delivering sustainable air transport. Organized by the Air Transport Action Group (ATAG) in partnership with Airports Council International (ACI), the Civil Air Navigation Services Organization (CANSO), the International Air Transport Association (IATA), and the International Coordinating Council of Aerospace Industries Association (ICCAIA), the Summit brought together over 300 participants from the aviation industry, civil society, governments and suppliers.

The Summit included sessions on: the contribution of technology in meeting the carbon reduction goal; sustainable alternative aviation fuels; aviation climate solutions case studies; noise management; environmental management; emerging environmental issues; perspectives for a global market-based measure (MBM) for aviation; and achieving sustainable aviation in the long-term. Perspectives from airports, manufacturers and air navigation service providers (ANSP) were presented, and the role of air transport in reducing the illegal trade in wildlife and the upcoming meeting of the Conference of the Parties (COP 21) to the United Nations Framework Convention on Climate Change (UNFCCC) were discussed.

This report summarizes the presentations and discussions held over the two days.

#### A BRIEF HISTORY OF THE GLOBAL SUSTAINABLE AVIATION SUMMIT

**First Aviation and Environment Summit:** This meeting convened from 17-18 March 2005, in Geneva, Switzerland, to discuss improving the environmental performance of the aviation industry. The Summit committed to: developing and using new technologies and operational procedures to minimize noise, fuel consumption and emissions; sharing and voluntarily applying best environmental practices; and establishing and building constructive dialogues with local communities and authorities around airports. The Summit also called on governments to adopt and implement effective land-use management policies in the vicinity of airports, to work with airports and air navigation service providers to ensure environmentally-responsible airport expansion and air route efficiency, and to work with the International Civil Aviation Organization (ICAO) to develop effective and efficient policies to address the environmental impacts of aviation.

**Second Aviation and Environment Summit:** This meeting took place from 25-26 April 2006, in Geneva, Switzerland, to discuss and strengthen collective action to reduce noise and air pollution, and to control emissions from aviation more broadly in the face of the competing challenges of environmental concerns, and increasing demand for air travel. The Summit agreed that technology is key to progress in these areas, highlighting the importance of, among other things, more efficient engines and environmentally-friendly biofuels.

**Third Aviation and Environment Summit:** This meeting convened in Geneva, Switzerland, on 22 April 2008, and focused on aviation's relationship to climate change. The outcome of the Summit was an Aviation Industry Commitment to Action on Climate Change, which underscored industry leaders' commitment to a pathway of carbon-neutral growth, including the development and implementation of new technologies and further improving aircraft fuel efficiency.

**Fourth Aviation and Environment Summit:** This meeting convened in Geneva, Switzerland, from 31 March - 1 April 2009 to assess progress since the third Summit and the adoption of the Aviation Industry Commitment to Action on Climate Change. The meeting called for increased research funding for the development of new technologies to enable aircrafts to fly more efficiently, requested policy makers to support the

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<http://enb.iisd.mobi/>

industry's efforts to accelerate the commercialization and implementation of aviation biofuels, and called for a global sectoral approach for aviation.

**Fifth Aviation and Environment Summit:** This meeting took place in Geneva, Switzerland, from 16-17 September 2010, focusing on assessing progress towards the industry-wide carbon emission reduction targets. Two outcome documents of the meeting, an Aviation Industry Resolution on Carbon-Neutral Growth from 2020 and a Global Framework Approach to Manage Aviation Emissions, strongly endorsed developing a comprehensive global carbon emissions management framework under ICAO.

**Sixth Aviation and Environment Summit:** This meeting convened in Geneva, from 21-22 March 2012, to discuss partnerships between industry leaders, civil society, governments and suppliers, to enable the aviation industry to contribute to sustainable economic development. Sessions focused on, *inter alia*, the role of aviation in sustainable development, developing sustainable capacity of the industry, tackling key scale-up challenges of biofuels, and securing a global framework. The Summit produced a declaration "Towards Sustainable Aviation," in which key industry leaders demonstrated their commitment to key goals of "economic growth, social development and environmental stewardship."

**Seventh Global Sustainable Aviation Summit:** The 2014 Summit convened in Geneva, from 29-30 April 2014, with a focus on aviation's role in contributing to global political movements such as the UN Sustainable Development Goals (SDGs) and future pathways for sustainable aviation. Panel sessions included discussions on challenges relating to implementing a market-based measure for aviation emissions by 2020, government and industry partnerships to achieve environmental initiatives, ATAG's Aviation Benefits Beyond Borders initiative, and building a sustainable future for aviation.

## MEETING REPORT

### OPENING

Michael Gill, Executive Director, ATAG, welcomed participants, noting that carbon emissions of the event were being completely offset through the funding of sustainable water access projects in Kenya. He provided an overview of the state of aviation in the context of climate change discussions and presented ATAG's "Aviation Climate Solutions," a collection of innovations and case studies from different sectors of the aviation industry (available at: [www.](http://www.)

[enviro.aero/climatesolutions](http://enviro.aero/climatesolutions)). He highlighted the three goals set by the aviation industry: to improve fleet fuel efficiency by 1.5% per year until 2020; to cap net carbon emissions in the industry by 2020; and to reduce its net carbon footprint by 50% relative to 2005 levels by 2050. He noted that the industry is currently surpassing the first goal by achieving 2.9% annual fuel efficiency improvements.

Keynote speaker André Borschberg, Chief Executive Officer (CEO), Co-Founder and Pilot, Solar Impulse, discussed overcoming challenges associated with developing the first solo solar-powered day and night flight. He stressed the importance of thinking beyond boundaries in order to exploit and share technological possibilities across sectors, noting that developments achieved by Solar Impulse could be transferred to other industries to reduce air pollution.

### SESSION 1: INDUSTRY GOAL 2050... CAN TECHNOLOGY DELIVER?

Moderator Alan Epstein, Vice-President, Technology and Environment, Pratt & Whitney opened the session, asking panelists whether a radical technological change would be required to meet the industry's 2050 goal. Sébastien Remy, Head of Innovations, Airbus Group, suggested that while meeting long-term goals would likely require radical change, short-term goals might be enabled by improvements in existing technologies. Jaiwon Shin, Aeronautics Research Mission Directorate, NASA, suggested that seeking out innovations at the boundaries of disciplines would enable radical shifts to become a possibility. Stating that "potential has to be exercised to be realized," John-Paul Clarke, Director of the Air Transportation Laboratory, Georgia Institute of Technology, pointed to the need for a holistic, industry-wide approach, noting that technological improvements in aircraft design often require infrastructure changes in air traffic management to enable their real-world implementation. David Morgan, Chief Flight Operations and Safety Officer/Chief Pilot, Air New Zealand, referred to the need to challenge current ways of thinking, indicating that achieving the 2050 goal would be difficult due to conservative approaches of certain ANSPs and governments.

On the potential of automation technology to contribute to achieving the 2050 goal, panelists discussed the technology's capacity for improving efficiency and safety, noting, however, that successful implementation would require an industry-wide paradigm shift in the role played by humans in the system. Morgan said he expected aircraft automation play an increasingly large role in the industry in the coming decades.



André Borschberg, CEO, Co-Founder and Pilot, Solar Impulse





Panelists (L-R): Sébastien Remy, Head of Innovations, The Airbus Group; Mirko Hornung, Executive Director, Research & Technology, Bauhaus Luftfahrt; Jaiwon Shin, Associate Administrator, Aeronautics Research Mission Directorate, NASA; John-Paul Clarke, Director of the Air Transportation Laboratory, Georgia Institute of Technology; and David Morgan, Chief Flight Operations Officer/Chief Pilot, Air New Zealand

Panelists discussed whether aviation should follow other industries by reducing aircraft lifespans in order to stimulate innovation by enabling more frequent entry of newer models into the market. Noting that this would require a paradigm shift in approaches to financial and safety-based risk in the industry, some panelists expressed uncertainty about whether this was the correct model for aviation, pointing to the large research and development investments required to conceive and develop each new aircraft, and the fact that shorter lifespan would imply lowering prices. Clarke suggested considering improvements from modular changes such as wingtip devices, rather than changing the entire aircraft.

On overcoming barriers to achieving the goal, panelists discussed the potential for technological transfers from other industries such as the phone, electronics and automobile industries. Mirko Hornung, Executive Director, Research and Technology, Bauhaus Luftfahrt, pointed to progress in the radiation protection sector as an example of this, noting that a transfer of such technology could reduce fuel consumption by enabling planes to fly shorter polar routes that are currently limited due to radiation levels.

**THE AIRPORT PERSPECTIVE: EXAMPLES FROM “AVIATION CLIMATE SOLUTIONS”:** Angela Gittens, Director General, Airports Council International (ACI), presented efficiency examples from airports, including: implementing green taxi fleets; reusing cooking oil from airport restaurants as alternative fuels for ground vehicles; and using recycled materials and renewable energy sources in airport buildings. She pointed to ACI collaboration initiatives such as: Airport Collaborative Decision Making to improve decision making, reduce delays and enhance efficiency; ACI Europe Airport Carbon Accreditation standards; and reporting tools for airport operators to calculate their own GHG emissions

**SPECIAL ANNOUNCEMENT:** Olivier Jankovec, Director General, ACI Europe, presented the latest figures with respect to Airport Carbon Accreditation, highlighting that 130 airports worldwide are certified, accounting for almost 29% of global passenger traffic.

**THE MANUFACTURER PERSPECTIVE: EXAMPLES FROM “AVIATION CLIMATE SOLUTIONS”:** David Melcher, President and CEO, Aerospace Industries Association, highlighted technical improvements toward sustainability goals in the aviation sector, such as: electric taxiing; 3D printing

technology that creates components weighing 30-50% less than traditional metal parts; and the Single European Sky Air Traffic Management Research Program (SESAR).

### ***SESSION 2: INDUSTRY GOAL 2050 - ALTERNATIVE FUELS AS A CATALYST - WHAT NEEDS TO BE DONE?***

Moderator Jennifer Holmgren, CEO, LanzaTech, introduced delegates to the session, noting various steps in the development of biofuel technologies and the importance of commitment, collaboration, and commercialization in producing large quantities of high quality biofuel.

On the motivating factors for industry involvement with alternative fuels, Angela Foster-Rice, Managing Director, Environmental Affairs and Sustainability, United Airlines, said that developing biofuels is the way to enable airlines to continue growing. Panelists stressed the importance of long-term considerations to enable companies to cope with price volatility in a carbon-restrained future, noting that alternative fuels could provide energy security to the market. Mark Watson, Head of Sustainable Development, John Swire & Sons Ltd., highlighted that biofuels are not only relevant to airlines but also other sectors, noting the importance of mainstreaming biofuels and developing partnerships. Nelson Salgado, Vice-President of Institutional Relations and Sustainability, Embraer, described Brazil’s extensive experience with biofuels, noting they only require a small percentage of agricultural land space.

On the role companies can play in the way the evolution of the alternative fuel industry, Julie Felgar, Managing Director, Environmental Strategy and Integration, Boeing, stressed the importance of the certification of biofuels. She pointed to increasing interactions between the airspace community and other actors such as feedstock providers and non-governmental organizations (NGOs), and to the need for policy incentives. Foster-Rice also underscored the importance of government-based measures such as loan guarantees and renewable fuel incentive programmes in enabling investor confidence in new markets. Kan-Ern Liew, Deputy CTO, Aerospace Malaysia Innovation Centre, stressed the importance of cooperation between countries rich in biodiversity and biomass and countries with high airspace traffic.

On the potential of sustainable alternative fuels to become the norm in aircraft, Olav Mosvold Larsen, Senior Executive Advisor, Avinor, pointed to the airport’s important role as mediator, connecting NGOs, authorities and the industry.





Session 2: Industry Goal 2050 - Alternative Fuels as a Catalyst - What Needs to be Done? (L-R): Moderator Jennifer Holmgren, Chief Executive Officer, LanzaTech; Julie Felgar, Managing Director, Environmental Strategy and Integration, Boeing; Angela Foster-Rice, Managing Director, Environmental Affairs Sustainability, United Airlines; Olav Mosvold Larsen, Senior Executive Advisor, Avinor and Oslo Airport; Kan-Ern Liew, Deputy Chief Technology Officer, Aerospace Malaysia Innovation Centre; Mark Watson, Head of Sustainable Development, John Swire & Sons Ltd; and Nelson Salgado, Vice-President of Institutional Relations and Sustainability, Embraer

He noted that a small percentage of sustainable alternatives are already being used in fuel blends at Oslo Airport, stating that the major challenge in increasing this percentage will be adequate supply. Felgar pointed to the fact that cost-competitive fuels are being developed on a small basis and predicted an increase in their production as offtake agreements that guarantee a market for the future production of biofuels become more commonplace. Panelists noted positive feedback regarding the use of alternative fuels from stakeholders including corporate customers and investors.

Further discussions took place, considering, *inter alia*: the importance of forward-thinking by senior management; sustainability standards that include social and economic development; and the role of industry organizations in fostering collaboration.

#### **PRESENTATION: AIR TRANSPORT'S ROLE IN REDUCING THE ILLEGAL TRADE IN WILDLIFE:**

John Scanlon, Secretary-General, Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), presented on the social, economic and ecological impacts of illicit wildlife trafficking, and the role of CITES in setting international rules for legitimate wildlife trade. He gave examples of how the aviation industry could help combat wildlife trade, including: adopting a zero tolerance policy on products from illegally traded wildlife; raising awareness of passenger and staff on the scale, nature and consequences of illegal wildlife trade; and supporting customs and enforcement agencies by sharing information gathered by ground staff.

#### **TECHNICAL BREAKOUT SESSION 1: AVIATION CLIMATE SOLUTIONS I**

Moderator Quentin Browell, Head of Communications, CANSO, underscored the need for the aviation industry, under the global spotlight of the UNFCCC COP 21 and 2016 ICAO Assembly, to have a comprehensive plan. He noted the important role of "Aviation Climate Solutions" as a handbook to guide colleagues around the world, with examples of ways to improve efficiency of operations and promote partnerships throughout the aviation industry.

Nicolas Gaspoz, Chief Technical Officer, Geneva Airport, discussed Geneva Airport's initiative to invest in solar panels to provide heating and cooling. He underscored the successful results of the initiative that show reduced CO2 emissions

despite growth in passengers, and noted the airport's three key policy commitments: reducing energy needs; improving energy efficiency; and increasing the share of renewable energy. Highlighting some examples in place in Geneva Airport, he mentioned, among others, integrated façade solar panels that have created a building producing more energy than it consumes.

Eric Guillard, Electric Green Taxiing System (EGTS) Sales and Marketing Manager, Safran, presented EGTS, a joint partnership between Honeywell and Safran, that enables aircraft to taxi and pushback from airport gates autonomously without the use of their engines, resulting in up to 73% reduction in various particle emissions. He noted three key benefits of the system: improved air quality; reduced costs for airlines; and more efficient operation times.

Paul Tronsor, Managing Director, Global Operations Control, FedEx Express, presented improvements to reduce CO2 emissions in departure queue management such as keeping engines switched off at the gate until the last possible moment. He also noted the use of new aircraft separation standards based on wake turbulence recategorization for landing and take off in Memphis, US, saving up to three minutes taxiing time and two and a half minutes approach time, leading to important CO2 emission reductions and improvements in reliability and efficiency.

Adriaan Heerbaart, Director, Pan-European Single Sky, EUROCONTROL, presented the Free Route Airspace, a specific section of airspace in which airspace users can plan routes between defined entry and exit points, with the possibility to route via intermediate way points without reference to the air traffic service route network. He indicated that the initiative was contributing to overcoming efficiency, capacity and environmental challenges, with potential annual reductions of 30,000 tonnes of CO2 in one area alone.

Carol Sim, Director, Environmental Affairs, Alaska Airlines, presented the "Greener Skies over Seattle" project, aimed at improving efficiency of flight paths in Seattle using satellite guidance technologies and new flight procedures, including optimized descent profiles and arrivals guided by area navigation (RNAV) and required navigation performance (RNP). She highlighted positive results including savings of nine minutes per flight and 1.5 million gallons of oil annually.



## TECHNICAL BREAKOUT SESSION 2: AVIATION CLIMATE SOLUTIONS II

Moderator Robert O'Meara, Director, Media & Communications, ACI Europe, opened the session. Udo Bradersen, Environmental Management Officer, Hamburg Airport, presented Hamburg Airport's carbon management plan that aims to cap emissions at 2009 levels, primarily through cuts in CO<sub>2</sub> emissions of airport buildings and vehicles. He pointed to measures such as implementing energy efficient lighting and improving efficiency of air-conditioning and ventilation systems, and underscored the airport's goal of increasing the share of alternative fuels used by ground vehicles to 50% by 2020.

Thierry Brégou, International Affairs and Corporate Strategy, Skyguide, presented the "Greener Wave" project, a collaboration between Swiss, Skyguide and Zurich Airport to reduce noise and CO<sub>2</sub> emissions. He explained that Greener Wave's four dimensional trajectory steering predictions enable the calculation of precise time slots for arrivals, resulting in 90% reductions in holding time, thereby reducing noise pollution and CO<sub>2</sub> emissions. Brégou stated that CO<sub>2</sub> emissions were reduced by 0.5 tonnes per flight, with total annual reductions of around 2100 tonnes achieved between 2011-2014.

Mike Kilburn, Senior Manager of Environment, Airport Authority of Hong Kong, outlined the pledge of the airport authority to reduce airport-wide carbon emissions by 25% per workload unit by 2015 relative to 2008 levels, through measures such as: the reduction of energy consumption; the preparation of future regulatory requirements; the fulfillment of public expectation; and the establishment of resilient operations. He reported a reduction in electricity consumption, the achievement of Level Three in Airport Carbon Accreditation, and the electrification of airside vehicles.

Tony Wheelens, Executive Manager, Government and International Relations, Qantas, described a programme for economic efficiency for the company's headquarters, operations, catering centers, jet maintenance and domestic terminals, using initiatives such as: RNP; a tri-generation

system that provides power, hot water, heating and air conditioning; and the world's largest airline carbon offset programme to protect wildlife and communities.

Eddie Redfern, Head of Regulatory Affairs, TUI Group, described competition projects within the group to develop innovative ideas for energy savings and CO<sub>2</sub> emission reductions, demonstrating the benefit of using ideas from all employees as well as external expertise to "green the business" and generate commercial benefits. This resulted in, among other things, the replacement of Jetairfly airside cars with electric vehicles at Brussels Airport. He also noted research on new technologies and materials through the Ecodemonstrator programme in partnership with NASA and Boeing.

**KEYNOTE SPEECH:** In a keynote address, Olumuyiwa Benard Aliu, President, ICAO Council, said that the adoption of a universal and legally binding agreement to combat climate change at the UNFCCC COP 21 will be crucial to encouraging ICAO Member States to make progress and reach, at their 39th Assembly, an agreement on a global MBM. He added that the aviation sector has been developing its own strategy to achieve ICAO's goals on CO<sub>2</sub> emissions, through various measures as well as partnerships.

**SPECIAL ANNOUNCEMENT - A COMMITMENT FROM INDUSTRY:** Gill presented an open letter from industry leaders to governments calling for robust and determined climate action and for the endorsement of a simple, global offsetting scheme at the 39th ICAO Assembly to stabilize air transport carbon emissions growth (available at: [www.enviro.aero/openletter](http://www.enviro.aero/openletter)). He stressed existing efforts in the sector, pointing to the doubling in fuel efficiency over the past 25 years, in which a single flight now produces half as much CO<sub>2</sub> as in 1990.

## SESSION 3: INDUSTRY GOAL CARBON-NEUTRAL GROWTH - PROSPECTS FOR A DEAL?

Moderator Dirk Forrister, President and CEO, International Emissions Trading Scheme (IETA) described the timeline to the 2016 ICAO Assembly as a parallel process to the road to COP21. He underscored the UNFCCC talks as a key



(L-R): Eddie Redfern, Head of Regulatory Affairs, TUI Group; Robert O'Meara, Director, Media & Communications, Airports Council International Europe; Udo Bradersen, Environmental Manager, Hamburg Airport; Thierry Brégou, International Affairs & Corporate Strategy, Skyguide; Mike Kilburn, Senior Manager, Airport Authority Hong Kong; and Tony Wheelens, Executive Manager, Government and International Relations, Qantas

driver in the path to developing an MBM for controlling aviation emissions, and pointed to encouraging lessons from the Intended Nationally Determined Contributions (INDC) process by demonstrating the momentum building from the collective effort of on-the-ground initiatives around the world.

Victor Manuel Aguado, Representative of Spain on the Council of ICAO, noted that while the UNFCCC and ICAO paths would influence each other, success at COP21 in Paris did not necessarily equal success in Montreal at the ICAO Assembly. He referred to the great momentum in the aviation industry, highlighting opportunities for success and potential challenges, notably the short timeline which will require an agreement to be put together by April 2016 in order to be presented to ICAO member States for consolidation by June 2016.

Carl Bureson, Deputy Assistant Administrator, Policy, International Affairs and Environment, Federal Aviation Administration, US, highlighted the encouraging nature of ICAO's strategy that covers many aspects of the sector. Noting that it would not be an easy path, given the short timeline adopted by ICAO to develop an MBM, he stated confidence in full and frank discussions in Montreal to achieve the goal, pointing to ICAO's good track record for responding to environmental issues such as noise pollution and mono-nitrogen oxide emissions.

Laurence Graff, Head of Unit, International Carbon Market, Aviation and Maritime, European Commission, noted the encouraging nature of the submitted INDCs that currently cover 70% of global emissions, but said that there would be work to do after Paris to keep the global temperature rise below 2°C. She discussed her expectation that the aviation industry would provide a fair contribution to this, noting the issue of differentiation as a key challenge that would need to be resolved in both the UNFCCC and ICAO discussions, adding that the outcome of Paris would be helpful for ICAO talks on this matter.

Paul Steele, Senior Vice-President, Member & External Relations & Corporate Secretary, IATA, observed that to move forward, the aviation industry needed not only improvements in technology, operation, and infrastructure, but also required an MBM. Highlighting the 2013 commitment on developing an MBM as a landmark achievement, he pointed to the need for clarity on issues such as differentiation, to avoid market distortions, and called for both policy guidance and political will.

Also highlighting the issue of achieving differentiation without discrimination, Annie Petsonk, International Counsel, Environmental Defense Fund, said a success on a global MBM could help the world move forward after Paris, noting aviation as the sole sector with such a policy tool that shows a clear path for future work.

David Antonioli, CEO, Verified Carbon Standard, underscored the opportunity of voluntary carbon markets for GHG reduction. He described the Verified Carbon Standard program as robust, noting its similar structure to the Clean Development Mechanism, and said it responds to demanding buyers in terms of compliance. He said it was evolving in a highly competitive sector, noting efforts to make the standard system stronger, and highlighted powerful local development results that had come about through the inclusion of forest credits in the carbon market.

Among other issues, discussions considered: how to integrate domestic carbon pricing into a global MBM to avoid double counting; ways to implement a clear and enforceable global system; and top-down versus bottom-up approaches.

**THE ANSP PERSPECTIVE: EXAMPLES FROM "AVIATION CLIMATE SOLUTIONS":** Jeff Poole, Director General, CANSO, described the invisible yet important role of air traffic management in the aviation value chain, underscoring the environmental benefits achieved through new airspace management procedures. He highlighted three key examples: shortening routes, which has so far been trialed in some areas of Europe, with annual savings of 16,000 tonnes CO<sub>2</sub> in Hungary, and 30,000 tonnes predicted in Germany; allowing planes to fly at optimum altitudes for fuel burn; and reducing delays through the development of advanced techniques to allow planes to fly closer together in windy conditions where wake vortices dissipate more quickly.

**SPECIAL ANNOUNCEMENT:** CANSO and ACI launched the "Managing the impact of aviation noise" guide, an initiative demonstrating that collaboration among all stakeholders including local communities is key to noise mitigation.

**PRESENTATION: UPDATE ON BROADER UNFCCC NEGOTIATIONS:** John Kilani, Director, Sustainable Development Mechanisms Programme, UNFCCC, discussed the state of the climate negotiations under the UNFCCC, noting that the vast experience accrued by parties to the process gave reason to be optimistic for a successful agreement at COP 21. He made several observations on expectations and issues to overcome, noting, among others, that mitigating climate change while eradicating poverty would require enormous resource mobilization, underlining the need for the Paris outcome to ensure public funds do not crowd out essential investments from the private sector.

### ***THE BIGGER PICTURE - STRIVING TO ACHIEVE SUSTAINABLE AVIATION IN THE LONG-TERM***

Moderator Anita Mendiratta, Lead Consultant, CNN Tourism Advertising Solutions and Knowledge (TASK) Group, invited panelists to discuss their perspective as leaders within the industry. Referring to the positive signs from the many collaborative initiatives and partnerships within the industry, Mendiratta noted, "we're all in this together, so we can either be part of the problem or part of the solution."

Brice Lalonde, Special Adviser on Sustainable Development, UN Global Compact, and former Green Party Minister, France, highlighted the importance of leadership and communication, noting that industry leaders must talk to politicians and reassure them of their commitment to sustainability. He reiterated the importance of partnerships and collaboration in furthering sustainable development, suggesting that the aviation sector could become a "friend of the forest" by using REDD carbon credits as part of a new MBM.

James G. Hnat, Executive Vice President, Corporate Affairs, General Counsel and Corporate Secretary, JetBlue Airways Corporation, noted the industry's track record of working together on issues of safety. He drew a parallel between the importance of high levels of safety and the importance of environmental sustainability to the aviation sector, noting that the industry had long recognized the vital importance of sharing information rather than competing when it comes to safety, which he stated as a good indicator that successful collaborative action on sustainability would continue.

Helen Marano, Vice-President, Government and Industry Relations, World Travel and Tourism Council, stated that "sustainability is viability." Referring to aviation as a conveyor of change that brings people together and enables progress to be made, she stressed the importance of leadership in communicating to communities on the benefits aviation and tourism can bring to their local economies.



John Holland-Kaye, CEO, Heathrow Airport Holdings Ltd., reiterated the importance of educating and engaging with local stakeholders to communicate the positive benefits from the sector on people's standard of living. He described engagement initiatives at Heathrow that invited stakeholders to discuss noise pollution and other issues related to airport developments with senior management. He stated that the industry would secure its long-term future by going above expectations to build a reputation as a leader in the field of sustainability.

Jean-Paul Ebanga, President & CEO, CFM International, stressed his company's seriousness about sustainability, highlighting investments made in new generation engines, and noting the development of sustainable solutions such as electric cars for employees' use. He commented on the economic benefits that the sector was bringing to emerging economies, stating that several aircraft parts were already being manufactured in Asia.

Martin Rolfe, CEO, NATS, stressed that air traffic control services have the obligation to operate efficiently, noting that sustainability should be at the core of businesses. He said a broader framework of sustainability would incentivize businesses to do the right thing. He made suggestions for ensuring long-term sustainability, including: enabling airspaces; valuing business; ensuring quick, careful and safe operations; and considering the interests of all stakeholders, with particular reference to keeping local communities happy.

Panelists also highlighted, among others, the importance of coalitions between all actors; the need to demonstrate tangible results, to report on performance and to develop trust; and the need to ensure the buy-in of crew members.

**THE AIRLINE PERSPECTIVE: EXAMPLES FROM "AVIATION CLIMATE SOLUTIONS":** Tony Tyler, Director General and CEO, IATA, presented on the airline approach to climate change, noting that collaboration through partnerships, innovation and industry unity are key, and that reaching an agreement on an MBM will contribute to bringing aviation's carbon-neutral growth to reality. He concluded, stating that aviation creates the connectivity that contributes to prosperity, which in turn drives the innovation that is needed for societies to move forward sustainably.

### CLOSING REMARKS

In his closing remarks, Gill said we now have a clear vision of what we need to do, which tools to use and how to go forward, and he ensured ATAG's continued support through its energy, enthusiasm and hard work. He thanked the ATAG Board; co-organizers; representatives from airports, airlines and manufactures; panelists; speakers; moderators; sponsors; and exhibitors, and brought the meeting to a close at 1:02pm.

### UPCOMING MEETINGS

**Annual Meetings of the World Bank Group and the International Monetary Fund:** The 2015 Annual Meetings of the World Bank Group and the IMF will bring together ministers of finance and central bank governors from the institutions' 188 member countries, and provide a forum for civil society, the private sector, academics and others to engage in discussions on economic issues. **dates:** 9-11 October 2015 **location:** Lima, Peru **contact:** David Theis, World Bank **phone:** +1-202-458-8626 **email:** [dtheis@worldbank.org](mailto:dtheis@worldbank.org) **www:** <https://www.imf.org/external/am/2015/index.htm>

**UNFCCC ADP 2-11:** The *Ad Hoc* Working Group on the Durban Platform for Enhanced Action (ADP) will hold the eleventh part of its second session in Bonn, Germany. **dates:** 19-23 October 2015 **location:** Bonn, Germany **contact:**

UNFCCC Secretariat **phone:** +49-228-815-1000 **fax:** +49-228-815-1999 **email:** [secretariat@unfccc.int](mailto:secretariat@unfccc.int) **www:** <http://unfccc.int/bodies/body/6645.php>

**First AFS:** The first Alternative Fuels Symposium (AFS) will be held to understand the commercial and economic landscape for sustainable aviation fuel. It will be organized in conjunction with the IATA Aviation Fuel Forum. **dates:** 5-6 November 2015 **venue:** Cancún ICC (International Convention Center) **location:** Cancún, Mexico **contact:** IATA Secretariat **email:** [afs@iata.org](mailto:afs@iata.org) **www:** <http://www.iata.org/events/Pages/alternative-fuels-symposium.aspx>

**G20 2015 Leaders' Summit:** The Turkish Presidency of the Group of 20 (G20) the G20 Leaders' Summit. The G20 aims to conclude the Summit with practical outcomes on such priority areas as development, climate change, financing for climate change, trade, growth, and employment. **dates:** 15-16 November 2015 **location:** Antalya, Turkey **contact:** Turkish Ministry of Foreign Affairs **email:** [G20info@mfa.gov.tr](mailto:G20info@mfa.gov.tr) **www:** <https://g20.org/>

**ICAO World Aviation Forum:** The 2015 ICAO World Aviation Forum will bring together States, international organizations and the industry, under the theme "Aviation Partnerships for Sustainable Development." **dates:** 23-25 November 2015 **location:** Montréal, Canada **contact:** ICAO Secretariat **email:** [iwaf2015@icao.int](mailto:iwaf2015@icao.int) **www:** <http://www.icao.int/Meetings/iwaf2015/Pages/default.aspx>

**UNFCCC COP 21:** The 21st session of the Conference of the Parties to the UNFCCC will take place in December 2015, in Paris, France. **dates:** 30 November - 11 December 2015 **location:** Paris, Ile-De-France, France **contact:** UNFCCC Secretariat **email:** [secretariat@unfccc.int](mailto:secretariat@unfccc.int) **www:** <http://www.unfccc.int>

**39th ICAO Assembly:** The 39th Session of the International Civil Aviation Organization (ICAO) Assembly will take place in September 2016. **dates:** 27 September - 7 October 2016 **venue:** ICAO headquarters **location:** Montréal, Canada **contact:** ICAO Secretariat **phone:** +1 514-954-8219 **email:** [icaohq@icao.int](mailto:icaohq@icao.int) **www:** <http://www.icao.int/Pages/default.aspx>

### GLOSSARY

ACI	Airports Council International
ANSP	Air Navigation Service Provider
ATAG	Air Transport Action Group
CANSO	Civil Air Navigation Services Organization
COP	Conference of the Parties
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ICCAIA	International Coordinating Council of Aerospace Industries Association
INDC	Intended Nationally Determined Contributions
MBM	Market Based Mechanism
UNFCCC	United Nations Framework Convention on Climate Change