



ICAO – World Bank – UBM Aviation

World Route Development Strategy Summit 2012

Conference White Paper

**Prepared by Aaron Heslehurst, News Anchor & Presenter of
BBC World Television, and Nora Weisskopf, Air Transport
Specialist of the World Bank**

Executive Summary

- There is a need for dialogue between government regulators and the industry to address what the industry feels is excessive regulation. As the development of airport charges shows, the competitive nature of the industry may potentially allow for a level of self-regulation without government intervention. Developing good commercial relationships between the different players in the industry will support that.
- Despite the global economic crisis there is growth expected in the industry (besides airfreight) which was confirmed by some airports in the US investing heavily in infrastructure, and by the European carrier TUI reporting not a decline in passenger traffic but merely a shift in destinations towards emerging markets. There seems to be overall consensus that growth in the industry will come from these markets.
- Given the ongoing development of major hubs in the Western hemisphere, and the anticipated development of hubs in the Middle East, the hubs vital role in the air transport system is confirmed. The design of these hubs will be primarily influenced by the new generation of aircraft and strategic alliances. However, some consider airline alliances to be at the end of their life cycle in their current form.
- The main future challenges for the industry are capacity constraints, regulatory constraints on market access and ownership and control, and the large need for airport and airline financing. The Arab World's young and technology minded population, as well as growing air travel markets in Central and Eastern Europe, Turkey and the Middle East, are considered the prime opportunities for the aviation market.
- The application of the European Emissions Trading Scheme (EU ETS) for aviation is currently the most controversial issue facing the global aviation industry. There is general agreement, that the International Civil Aviation Organization (ICAO) should take the lead in the development of a global scheme for aviation. However, there is a feeling that this complex issue faces several challenges, including decision-making processes under the ICAO bodies. Furthermore, the actual problem seems potentially not to be the scheme it-self, but the high level of environmental taxation across Europe in various sectors, as well as the slow implementation of low-hanging fruits such as the European Single Sky initiative.
- With declining oil field discoveries and increasing cost of extraction accompanied by a slow development of large scale and affordable biofuel, fuel cost represent one of the most significant challenges for the future of aviation. Not only fuel prices, but price volatility is demanding for flexible and potentially smaller fleets to be able to adjust quickly to demand changes. The priority in terms of fuel cost is the need to overall reduce oil consumption, and increase technological and operational efficiency.
- Liberalization of air traffic in emerging markets, in some cases within regional economic communities such as SADEC in Southern Africa, will bring significant opportunities for growth. However, maintaining safety and security standards still poses significant challenges in some emerging countries, such as India, and in a large part of Africa. The upcoming Air Transport Conference at ICAO in March 2013 will focus on the above issues.

Day 1: Sunday 30 September 2012

Summit Opening Address: James Bennett, Chief Executive Officer, ADAC

Opening the summit, James Bennett, CEO of the Abu Dhabi Airports Company (ADAC) highlighted some of the impressive aviation developments in the Middle Eastern and in particular the Gulf Region. Despite economic uncertainties across the globe and shrinking passenger and cargo figures, the Middle East has demonstrated remarkable growth with a 12.8% increase in Available Seat Kilometers (ASK) and 17% Revenue Passenger Kilometers (RPK) in the period between January and July of this year. Its home-based carriers, gaining market share on the long-haul international routes, have fueled this growth. The United Arab Emirates four national carriers, Etihad, Emirates, FlyDubai and Air Arabia, have aircraft worth US\$119 billion on order. In 2012 alone, 48 new aircraft were delivered between these four carriers, out of which 34 were wide body including ten A380s. To cope with this demand, and as part of Abu Dhabi's 2030 vision for developing a truly cosmopolitan and sustainable city, USD\$19 billion are being invested in airport infrastructure. One of the fastest growing airports in the world with 21.5% year-to-date growth in comparison to last year and 11 million passengers, Abu Dhabi Airport required some temporary upgrades to support this capacity increase. Until the works on the new Midfield terminal are completed in 2017, allowing for 30 million passenger per year, intermediate measures such as second independent parallel runway, 30 additional parking stands and a third terminal have been put in place. Focus is not only on Abu Dhabi Airport, but also on the smaller airports under ADAC's authority. ADAC has been promoting new routes and is working together with authorities and the industry to foster the overall development of the aviation infrastructure in the country.

Keynote Address: James Hogan, Chief Executive Officer, Etihad

The importance of partnership and a focused and cost efficient business model are the key success ingredients of Etihad, the fastest growing airline in the history of aviation. Despite challenges in the region last year, including the events of the Arab Spring and the global economic challenges, Etihad reported US\$1.3 billion revenue and its first net profit of US\$14 million in 2011. With a small and flexible fleet of 67 aircraft (71 by the end of 2012) and with an average age of 4.9 years, the carrier has developed its network through 38 alliances and four unique equity partnerships with other carriers. These include Air Berlin 29.2%, Aer Lingus 2.9%, Air Seychelles 40% and Virgin Australia 4.9%. With its equity partners the airline has a combined fleet of 379 aircraft serving 384 destinations, transporting 79 million passengers, and generating US\$14 billion of revenue. These arrangements allowed the airline to cut cost significantly by streamlining common expenses such as training, and aircraft and engine purchasing. Etihad is expecting to earn \$281million in revenue from partners in 2012, 20% of its revenues are from codeshares.

A successful example of Etihad's arrangements is its code sharing agreement with Virgin Australia that had opened up the New Zealand and Australian market for the carrier.

The airline is also working in close partnership with the airport authority ADAC to provide the needed facilities to improve customer experience.

Etihad contributed to 10.6% of non-oil related GDP of Abu Dhabi.

In terms of its business model, Etihad is operating as a full service carrier with high-level customer service whilst still maintaining a low cost structure enabling it to offer competitive fares. Its success recipe seems to be based on a clear and focused strategy, constantly identifying new opportunities in the different regions in the world through foresight and rigorous analysis.

With the emerging subcontinent of India, as well as a growing Africa at its doorstep, the airline sees great growth potential for the future. James Hogan was confident the Middle East could support 3 hub carriers and felt that the Emirates – Qantas deal would benefit the Middle East region as more connecting traffic would get familiar with using the Middle East as a connecting point.

Session 1: Constraints to growth and sustainability: Analysing the impact of policy on the development of the aviation industry

Session Moderator: Dr. Charles E. Schlumberger, Lead Air Transport Specialist, Water and Information & Communication Technologies Department, **The World Bank Group**

Jeff Poole, Director, Government and Industry Affairs, **International Air Transport Association**

Boubacar Djibo, Director, Air Transport Bureau, **ICAO**

Damien Meadows, Advisor to the DG for **Climate Action of the European Commission**

Athar Husain Khan, Acting Secretary General, **Association of European Airlines**

Dr. Paul Hooper, Senior Consultant Economics and Regulation, **Department of Transport, Abu Dhabi**

Olivier Jankovec, Director General, **ACI Europe**

In an environment where economic uncertainties have never been higher and budgets are tight – has the airline industry become the cash cow of governments? With this question moderator Charles Schlumberger opened the first panel at this year's World Routes Development Strategy Summit in Abu Dhabi.

Jeff Poole initiated the discussion by highlighting what he sees as the most crucial problem in the interaction between governments and the aviation industry: Government regulators simply do not understand the aviation business and most importantly the complexity of the aviation model. Consequently this lack of understanding of the industry and its benefits has led to governments unwillingness to 'nurture the cow', instead penalizing it with excessive regulation. There is a strong need for the different parties of the industry to work in partnership to advocate its importance to respective governments and thus bring about the needed change. Governments should then assume responsibility by providing the right framework and cost-efficient infrastructure to allow the industry to operate in a sustainable and environmentally friendly way.

Despite overall resistance against government intervention in the industry, complaints by airlines on the high level of airport charges have given rise to questions whether airport regulation would be needed in this area. However, as Olivier Jankovec highlighted, the environment for airports is changing and has become much more competitive. Airports can no longer afford to charge excessive rates. He stated that 64% of airports in Europe are freezing or reducing their charges this year. In three out of the last four years, charges at more than 30% of airports have been reduced or frozen. Focus has, in general, shifted away from relying on revenue generated from airlines alone to non-aeronautical revenues. Airports have also tried to adapt the structure of their charges by decreasing airline related charges at the expense of passenger charges, therefore sharing the risk with airlines. There has been a decrease of 7% in revenue generated from airline-related charges in 2010 resulting in a cost saving of EU€350 million for airlines.

Representing the Association of European Airlines, Athar Husain Khan acknowledged that regulators have recognized that some form of economic intervention is needed in the aviation market. Nonetheless, he agreed that some changes in the airport market had taken place, which made it more competitive. He went on to add that in general the issue may not be a lack of understanding of the economic impact of aviation, but that it was being taken for granted by governments. A framework needs to be in place that allows the industry to compete and be sustainable.

Dr. Paul Hooper added that the purpose of regulation should be to make a market function well. When looking at growth figures of the aviation market, the picture seems to look very 'rosy' despite regulatory constraints. There are however always losers and winners in that growth. Regulation should give the operator the freedom to develop efficient networks and deliver value added as well as facilitate the ability of the players in the value chain to develop good commercial relationships. For this to be possible, regulators will however need to be kept at bay. Nonetheless the industry should also focus on what they could do to self-regulate, with a particular focus on developing good commercial relationships between each other.

Addressing one of the most discussed topics in regulation the panel turned to the role of environmental regulation through the controversial EU ETS. Damien Meadows emphasized the importance of separating charges and taxes from emissions trading. Unlike biofuel mandates and other taxes that go straight into the public treasury, if emissions are increased under an emission-trading scheme like the EU ETS, the acquisition of emission credits will support 4000 existing clean energy projects in the developing world. He agreed that a global internalization of climate change cost through a framework by ICAO would be the best way forward. The organization faces complex challenges, however, as the individual position of member states varies significantly. Furthermore, it was ICAO in 2004 that decided regulation was needed on a national rather than a global level. The European Commission will work closely with ICAO to develop a global scheme, but will continue to enforce the EU ETS until such a global system is in place. He acknowledged that aviation contributes only 2% of climate change, but this is "heading to 4%" (Road Transport accounts for 74%).

The Director of the ICAO Air Transport Bureau Boubacar Djibo added that the organization has a mandate to look at this issue globally. ICAO will not only take market based measures into account, but is looking at a holistic framework for reducing carbon emissions, taking into account the outcome of the negotiations under the United Nations Framework Convention on Climate Change (UNFCCC). A concrete proposal will be prepared for discussion at the General Assembly of ICAO in 2013. As Athar Husain Khan noted, however, although ETS is the topic on everyone's mind, more focus needs to be on enhancing technical and operational measures that reduce emissions by decreasing overall fuel usage as well as on efficient infrastructure on the ground and in the air. Initiatives, such as the Single European Sky, need to move forward, as this can save up to 100 million tons of CO₂. Vijay Poonoosamy from Etihad pointed out that the Single European Sky would save 150 million tons of carbon dioxide each year.

Keynote Address: H.E. Olga Kefalogianni, Minister of Tourism, Greece

In her keynote address, H.E. Olga Kefalogianni, highlighted the synonymy of aviation and tourism in today's globalized market.

Faced with the European crisis and high fuel prices coupled with a weakening of the Euro, the aviation industry has seen marginal traffic growth in Western Europe. This reduced growth and increased competition from low-cost and foreign carriers has led to the consolidation of the three major European carrier groups, Lufthansa and its subsidiaries, KLM-Air France and British Airways-Iberia and has threatened the sustainability of medium sized regional and charter carriers, of particular importance for peripheral countries like Greece. Despite these industry developments, as well as a macro-economic crisis in the country with 6.9% decrease in GDP in 2011, the tourism sector remains a strong component of the economy representing 15% of the country's economic output. In the same year, international tourist arrivals grew by 8%. In 2012, with another expected GDP decrease by 7.1%, a decline in tourist arrivals of only 3% is anticipated. Based on a study done by McKinsey in 2011, incremental annual tourism demand in Greece could be worth EU€25 Billion by 2021. To achieve this, there has to be a parallel development in the aviation industry with regards to regulatory and infrastructure reform. Easing visa requirements, especially for travelers from emerging economies, for example, is one of the important factors to support route development.

Due to its location, but also its geographical nature featuring numerous islands, connectivity is integral for Greece. The country's 39 airports, half of which are on the islands, handle approximately 40 million passengers per year of which 70% are international. Relying almost entirely on inbound tourism, some of the island airports are the main focus of the government's current privatization process.

Athens' privately managed international airport which opened in 2001, has suffered significantly from the current crisis. To increase traffic flows again, the airport has invested in an incentive scheme aimed at sharing the risk of entering the market with its airline partners. The country is also working on a strategy to revamp travel and tourism for the capital.

Session 2: Establishing the potential of the aviation industry to drive economic growth in the current financial climate

Moderator: Aaron Heslehurst, News Anchor & Presenter, **BBC World Television**

Patrick Heck, CFO, **Denver International Airport**

Olaf Petersenn, Director Flight Division, **TUI Deutschland GmbH**

Richard Evans, Head of Market Analysis, Civil Large Engines, **Rolls-Royce plc**

Hiran Perera, SVP for Cargo Planning & Freighters, **Emirates SkyCargo**

Rosemarie S. Andolino, Commissioner, **Chicago Department of Aviation**

Mohammed Al Dhaheri, Quality and Performance Manager, **Abu Dhabi Tourism and Culture Authority**

The world is in turmoil. As Tony Tyler, chairman of IATA mentioned at the organisation's latest AGM in Beijing "The biggest and most immediate risk to the industry is the Eurozone crisis". The markets in the US are still experiencing 8% unemployment with the government still struggling on deciding on the budget, and even the BRIC economies are, despite great hopes, slowing down.

In this climate, a generally fragile airline industry has had to take quite a few hits including the disappearance of Malev airlines and Spanair this year and stagnating or decreasing profits across most regions. With revenues of US\$631 billion revenue, airlines only generated profits of US\$3 billion in 2011. Facing these challenges, the question is: how can the aviation industry still drive economic growth?

The focus of the panel was in a first instance on air cargo, traditionally a good indicator of the future development of the industry. According to Hiran Perera, this had however changed considerably. He underlined the difficulties in predicting the future developments of the cargo market. Although in 2010 there was a sudden growth in freight traffic, he voiced his concerns with regards to a similar development this year. It seems that cargo is not really a lead indicator for the rest of the industry and the economy anymore. Even when airfreight had been weak, passenger and economic figures did not follow suit six months later. In early 2012, the forecast for cargo was much stronger than what could actually be seen in the market until now, and even the last quarter is not expected to show any growth and the industry could see declines of up to 7 to 10%. In his opinion, cargo is heading towards a difficult and volatile period, worse than the situation in 2009.

On the airline and airport side the outlook was much less bleak. According to Olaf Petersenn, TUI had not seen a downturn in passenger figures, as people were still willing to spend their income on holiday travel. A shift has occurred in terms of destination market however, away from more volatile markets such as Greece towards emerging markets. Similarly on the tourism side, no downturn could be seen in Abu Dhabi. According to Mohammed Al Dhaheri the number of guests projected had been achieved this year and an increase was to be expected over the coming years.

On the airports' side, both Chicago and Denver had seen growth. Rosemarie S. Andolino highlighted that, supported by the American Administration's commitment to tourism, airports had been very proactive in supporting the industry's growth. Chicago has attracted 15 new carriers since 2009 bringing US\$1.9 billion into the city. This has also been reflected in passenger numbers at both Chicago airports, being up 2% last year. Under the O'Hare modernization program the airport has also been investing heavily in the much-needed infrastructure. This includes the expansion of the airfield and a new state-of-the-art cargo facility. These infrastructure programs have created a large number of jobs during the crisis. Patrick Heck painted a similar picture, mentioning the need for investments into airport infrastructure to remain competitive. Financing of airports and airlines is therefore one of the major issues in the current state of the economy, particularly for smaller hubs. In the US, funding from the Federal Aviation Authority (FAA) has been very limited, and airports consequently have to turn to debt markets. Due to their size both Denver and Chicago had fortunately been able to access funds and could benefit from the low interest rates on the market. Many small to medium sized airports are struggling with regards to this however.

Based on their own assessments of the company's revenue streams and other lead indicators (e.g. aircraft utilization, capacity), Richard Evans projected quite a mixed picture in the short-term. So far this year passenger traffic has grown globally around 5.5%. In the West (North America and Europe) growth had only been at 2%, however, whereas in the rest of the world it had been around 7-8%. This can partially be explained by the stage of liberalization the different regions have achieved, and with the amount of consolidation that occurred in these markets. In the more liberalized and consolidated Western markets the emphasis has been on cost reductions rather than on growth, whereas emerging regions are taking advantage of the ever-evolving liberalization and growth opportunities.

The panel also discussed the issue of airline profitability. Oil prices and volatility were seen as one of the major challenges by the panel and the audience. Fuel costs represent in some cases around half of an operators cost. As Olaf Petersenn highlighted however, the European market has also been struggling with overcapacity and will need to restructure itself. TUI had downsized considerably over the last years due to this. The strong presence of LCCs and the increasing transparency of ticket cost through the Internet have also put pressure on legacy and network airlines to offer more competitive prices. More and more US carriers have been decoupling their services to compete with LCCs.

The panel agreed that the achievement of sustainable growth in cargo and passenger travel relied on partnerships within and outside the aviation industry and on an efficient and flexible business model. Liberalization, less bureaucracy and better government support are also key in ensuring global industry growth. In the US, for example, the Obama administration is helping the industry by easing restrictions on visas to foster the domestic tourism industry.

Keynote Address - The importance of connectivity to tourism: Dionisio Peres, Ministry of Communications and Transport, Mexico

The 14th largest economy in the world with a GDP of US\$1.2 trillion, Mexico has been growing steadily and appears to be immune against the ongoing financial crisis faced by the world. With a government committed to increasing connectivity, the country has become the most open market in Latin America with 43 trade agreements and has invested heavily in transport infrastructure over the last years. Investments in aviation have included the construction of several new airports, including Puerto Penasco Airport in the North West of Mexico, as well as new terminals and new runways in airports such as Cancun, and the expansion of close to 12 existing terminals and platforms at various airports.

The passenger figures for Mexico have surpassed pre-2009 levels and are projected to reach 54 million this year. This represents a growth of 9.1% in July 2012 in comparison to the same time last year. Both domestic and international ASK have been growing consistently.

Mexico has taken a proactive approach in the development of its route network. It currently has 44 Bilateral Air Service Agreements (ASA), of which 28 were negotiated since 2007. Another 14 new ASAs are ready to be signed including ones with the United Arab Emirates, Qatar and South. The airport sector is particularly focused on attracting airlines from the Middle East and Asia.

Session 3: Forecasting the continued and future impact of key industry developments on the growth of global aviation

Session Moderator: Michael F. Kellaway, Aviation Adviser, **Department of Transport, Abu Dhabi**

Peter Wiesner, Senior Vice President - Network Management, **Bangkok Airways**
Jeffrey P. Fegan, Chief Executive Officer, **Dallas/Fort Worth International Airport**
Gina Marie Lindsey, Executive Director, **Los Angeles World Airports**
Gloria Guevera, **Minister of Tourism, Mexico**

What will shape the future of aviation? Starting off with three short presentations by Gina Marie Lindsey, Gloria Guevara and Jeffrey Fegan, the panel focused on the dynamics of hubs and strategic alliances as well as on the changing technologies of new aircraft, and how these factors will change the future of aviation.

Gina Marie Lindsey outlined in her presentation that the new generation of aircraft including the A380, A350, B787 and B747-400 were a major influence on the large improvement program at Los Angeles (LAX) airport. Similarly, alliances, of which three are currently present at LAX, contributed significantly to its future design. As LAX is essentially made up of nine small airports, accommodating airlines in alliances closely to each other and providing for fast connections between terminals is crucial. According to Gina Marie Lindsey, partnerships between airlines will play a significant role in the future, which airports will need to facilitate.

Gloria Guevara also focused on the importance of partnership. As she highlighted, the so-called 'National agreement' in Mexico, a business plan formulating a clear tourism strategy, brought together the private sector, governments and universities. Touching on the topic of hubs, Gloria Guevara pointed out that there were two major reasons for the development of a hub: the population of a city and its attractiveness for tourism. For example, Mexico City became a hub because of its population whereas Cancun became the second largest hub in the country due to its attractiveness as a tourism destination. The tourism sector can therefore play an important role in supporting the development of sustainable route networks.

Jeffrey Fegan highlighted the importance of new aircraft to his airport in particular for the future long-haul strategic markets such as Australia, China and Vietnam. The Boeing B787 will play a vital role in the development of these routes and consequently of the airport.

After the three short presentations, the panelists discussed the importance and future of hubs. Peter Wiesner pointed out that hubs in his home market in Asia such as Singapore, Bangkok and others will have an important role to play in the future development of aviation. Using Bangkok as a hub has been of tremendous value to his airline, Bangkok Airways. The interline agreement with Etihad on flights between the Middle East and rest of Asia has been the best performing arrangement in the last four years. Both Los Angeles and Dallas/Fort Worth International Airport have put significant efforts into the maintenance of their hubs. Having adequate capacity for new airlines to enter, providing a great customer experience and working together with the communities around them were some of the key success factors mentioned by both executives. In terms of the development of future hubs the panel agreed that the emerging markets of Asia and Russia would provide a good breeding ground. The Middle East was portrayed as a great example of the rapid evolution of hubs.

The panel then shifted its focus on the issue of next generation aircraft representing a game changer for aviation. Jeffrey P. Fegan emphasized that he did not see the development of supersonic aircraft in the near future. Customer service level had improved to a level where passengers did not mind spending long hours on airplanes. Gina Marie Lindsey was in agreement with this statement and added that this could be seen in the configuration of the Airbus A380 by most airlines. Instead of using the aircraft up to its maximum capacity, carriers focused on increasing customer satisfaction level with spacious seating. Peter Wiesner noted, however, that as novelty of the A380 was going to wear off this might change with airlines adapting their seat configurations to increase passenger capacity. According to him, the importance of future aircraft lies in increased efficiency and therefore reduced cost. Such aircraft would allow airlines to operate on long routes with thin traffic, making it possible to avoid congestion and slot controls by flying to smaller airports.

The panel also questioned the future existence of alliances. Peter Wiesner believes that alliances will still be of value with regards to ticket prices, shared facilities and codeshare agreements, but that the strictness with which alliances operate today will not be feasible in the future. Michael Kellway agreed that the counter-competitive nature of alliances and their restrictions could potentially mean the end of alliances in the near future.

Session 4: Global perspectives: Capitalising on opportunities and overcoming challenges facing the air transport industry

Session Moderator: Aaron Heslehurst, News Anchor & Presenter, **BBC World Television**

Abdul Wahab Teffaha, Secretary General, **Arab Air Carriers Organization**

Fidel Lopez, MD, Airports Division, **BAA Airports Limited**

Alex Cruz, CEO, **Vueling**

Dr Yiannis N. Paraschis, Chief Executive Officer, **Athens International Airport**, and Chairman, **ACI World**

Greg Principato, President, **Airports Council International North America**

The focus of this panel was on the challenges and opportunities for the aviation industry in the future. Starting off from the airline's perspective, Abdul Teffaha noted that in his eyes the challenge for airlines globally was the inability of regulators to acknowledge the economic impact of the aviation industry. Although regulators promised to deregulate aviation markets, regulations had become more much excessive in recent years which were hurting the airline industry. Protectionism had also become an issue, which is reflected in the European Commission's latest communiqué stating the need to regulate the entrance of Gulf carriers in the EU to ensure the future profitability of European carriers.

From the airport's side, Fidel Lopez sees the major issue in limited capacity at airports. Congestion at BAA's main airport Heathrow, caused by its currently 70 million passengers and restricted to two runways, has become a significant challenge. It will be impossible to maintain Heathrow as a major hub over time with these restrictions in place. Alex Cruz from Vueling added that for him the biggest challenge is the economic downturn, particularly in Spain. Most income is by now coming from international traffic as the domestic market has declined considerably. Vueling's business model, with the right balance between offering a premium product at a low price and keeping cost at bay, has allowed the carrier to survive in the market.

Yiannis N. Paraschis also sees financing as a major challenge for infrastructure and airlines. Airports should not only be seen as business entities but also as enabler for other industries. Consequently there is a need to share the burden and the profits among all stakeholders inside and even outside the value chain of the aviation system. Greg Principato from ACI added that the biggest challenge for North American airports, particularly the US, is the outdated financial framework under which they operate. Historically airports and airlines were strongly regulated by the government and the airport's role was limited to the maintenance of its facilities. Governments decided on airline's networks as well as fees (e.g. passenger fees) at airports. With times having changed significantly, airports would benefit from a modernized financing system that did not rely so much on government intervention. The airport system in the North American market has US\$80 billion in capital needs in the next five years, and is facing US\$82 billion of debt. One would therefore assume there was a strong push to change the financing system of airports, but this does not seem to be the case, neither from the

government nor the airline side. Furthermore, in agreement with Abdul Teffaha, he can also see the development of protectionism in the US constraining the industry considerably.

Despite these challenges, the aviation industry will be able to capitalize on a number of opportunities in the near future. According to Abdul Teffaha, the opportunities will particularly arise from the young and technologically minded population of the Arab World. The Middle East is still a new market that will be able to grow considerably in the coming years, and its geographical location is of strategic importance for growth. Arab carriers have been able to evolve away from the 'utilities concept' of air travel to high-class affordable air travel service recognized across the globe. The sophisticated airport infrastructure in the Middle East has complemented this service offering.

As Fidel Lopez added, he believes that the low-cost model, which has proven to be very successful in the past, is bound to grow further in the future. LCCs are demanding customers for airports, but they make airports revisit their concepts and push them to become more efficient. Nevertheless, their future development, like the rest of the industry, depends on the return of GDP growth.

Alex Cruz highlighted that in his view opportunities lie within Vueling's human resources. The carrier's employees are its key success factor and efficient and productive teams will need to be sustained in order to remain successful. Moreover, he feels that regulation has actually been in their favour and does not pose a challenge to the airline. Nonetheless, he believes that it is necessary that European carriers go through some major and much needed restructuring, which would result from increased competition from Gulf carriers. For Yiannis Paraschis, growth will come from Central and Eastern Europe, Turkey and the Middle East. Diversification into other areas than aviation will also be vital. Athens airport has recently built the largest solar park in the world in line with the 20-20-20 scheme in Europe. Population growth in the US and continued immigration from its neighbouring countries will pose significant opportunities for North America according to Greg Principato. Additionally, the development of a new set of aviation policies could act as a major facilitator of aviation growth.

The audience also raised the issue of subsidies for Middle Eastern carriers, particularly with regards to fuel. Highlighted by Damien Meadows, in 2004 the European Commission formulated a regulation against illegal subsidies by Gulf carriers. This regulation was, however, never used, as it was too difficult to prove that subsidies were actually given to Gulf carriers. Therefore the assumptions of the current communiqué are based on something that still remains to be proven. He believes that Gulf carriers should make their case with regards to this topic, rendering protectionist measures by Europe unsupportable. As Abdul Wahab Teffaha noted, it is difficult to define what these subsidies exactly consist of. If one only looks at face value, auditors have proven that carriers such as Emirates have not been privy to illegal subsidies. Furthermore, the subsidization of European carriers by European governments over many years makes the European Commission's allegations somewhat hypocritical. Supported by voices from the audience Abdul Wahab Teffaha stressed that consumer interest should be at forefront at the end of the day.

In conclusion, Jeff Poole stated that the importance in the outlined challenges is to have a coordinated message from the industry to the government. Mexico is a great example of involving all stakeholders to put aviation on agenda of the G20. The importance is also to get the beneficiaries of aviation talking on behalf of the industry.

Day 2: Monday 1 October 2012

Session 5: Carbon financing in air transport: Discussing the key developments and challenges of the EU ETS Implementation

Session Moderator: Jeremy Robinson, Partner, Gates and Partners LLP

John Hanlon, Secretary General, **European Low-Fare Airlines Association (ELFAA)**
Damien Meadows, Advisor to the DG for **Climate Action of the European Commission**
Professor Geoffrey Lipman, President, International Council of Tourism Partners (**ICTP**), and Director, **greenearth.travel**

The EU ETS has been labeled a ‘EU deficit reduction ploy’ and was accused of ‘infringing sovereignty and meddling with the delicate international framework of aviation’. Being one of the most discussed topics in aviation these days, the panel discussed what some believe “may prove to be single most disruptive regulatory event to befall the aviation community in its 100 year history”.

Facing the threat of a trade war and other retaliatory measures, as outlined in the ‘Joint Declaration of the Moscow meeting on the inclusion of aviation into the EU ETS’, the panel discussed the extent to which such uproar was to be anticipated, how it could have been avoided, and the current likelihood of these threats turning into reality. Damien Meadows noted that any economic policy brings challenges with it but if the industry accepts the impact it has on the environment, market based measures such as put forward by the EU ETS, are most suitable for the market, in particular for fast growing industries such as aviation. Nonetheless, the European Commission would be in favour of a global system developed and implemented through ICAO, and it had only acted on the call for a national system by ICAO back in 2006. He also highlighted that looking at other charges such as the British Air Passenger Duty (ADP) of GB£ 92 per person on a long-haul flight in economy class, should put the estimated EU€3 ETS charge for a transatlantic flight or the EU€0.25 charged by Ryanair for intra-European flights in perspective. With all the challenges that the industry is facing according to IATA, being able to show, by participating in the EU ETS, that aviation had done its part in terms of environmental sustainability, would increase all stakeholders bargaining position when it comes to the implementation of other national environmental taxes. As Geoffrey Lipman countered he does not believe this would actually stop government’s from imposing so called “environmental taxes” on the industry that are ultimately used to bolster treasury’s budgets.

With regards to the likelihood of the threats of the Joint Moscow Declaration becoming real, Damien Meadows emphasized that although there are some interest groups that will try to pursue some of the actions of the declaration, he has not seen any action by the World Trade Organization (WTO) yet. Geoffrey Lipman added that one forgets that

these trade disputes have happened in the past and there had always been a resolution, even if at the last minute. ICAO will have to step up to find a suitable deal in an appropriate time frame. In turn, the European Commission will have to give it the opportunity to do so. However, the complexity of ICAO as an organization makes this a rather difficult task.

John Hanlon added that ELFAA is absolutely supportive of the EU ETS. As new aircraft technologies are not developing fast enough, and given that the European Commission has still not been able to implement the Single European Sky initiative, market based mechanisms appear to be a viable solution. EU ETS will provide the same environmental benefit as a fuel charge at a lower cost for the industry, and is a suitable alternative to regressive taxation that restricts the socio-economic enabling effect of aviation.

As agreed by all panelists, the real issue may not be the EU ETS but environmental taxes levied by national governments, which are not used in the air transport industry. The UK makes GB£ 3 billion from their APD tax each year in comparison to the estimated GB£ 50 million that EU ETS would generate. Other examples include the US\$ 16 Dollar entry and exit charge, and fees for the US visa waiver system ESTA. As John Hanlon pointed out, it is the role of the European Commission to denounce this taxation. In agreement with John Hanlon, Geoffrey Lipman added that an official European position on the rational utilization of funding from alternative schemes, such as taxation, as well as the implementation of the Single European Sky Initiative should be pre-requisites for the application of the EU ETS scheme.

Although Damien Meadows agreed that there would need to be a push towards the implementation of the Single European Sky initiative, he did not believe it to be likely for the EU ETS to be suspended until there is a suitable alternative in place. Furthermore, he added that Germany was a good example of a country that had to lower its APD because of EU ETS, making it overall cheaper to fly out of Germany. John Hanlon made it clear to the audience, however, that the German departure tax in question, which had been imposed overnight two years ago, had only been removed to the extent that it was now covered by revenues from the auctioning of carbon credits and should therefore be assessed with caution.

The issue of hypothecation was also discussed in more detail by the panel. For other industries under the emission-trading scheme, 50% of revenue from auctioning credits are hypothecated. As Damien Meadows highlighted, this will be similar for aviation but was not made mandatory in the EU ETS' policy. Some countries such as Germany, for example had, hypothecated all their revenues whereas the United Kingdom refrained from hypothecation.

John Hanlon acknowledged that his biggest fear is that the proposed resolution for the issues with EU ETS will "get people off the hook and destroy or significantly damage the environmental credentials of the ETS". 80% of EU aviation emissions of CO₂ are arising from long-haul flights. Therefore excluding arriving long-haul flights from outside the EU for example would remove 40% of EU emissions from the scheme's control. This would strengthen the position of national governments to justify additional measures.

One of the most prominent arguments against the EU ETS is the issue of extraterritoriality. John Hanlon highlighted that there was no justification for this argument, as carriers, unless landing in EU territory, would not be charged. Furthermore, requirements imposed by the US such as mandatory data transfer, could also be considered extraterritorial. Damien noted that extraterritoriality may become an issue if a global scheme is developed by ICAO however, as oceanic space will have to be attributed to one party.

The panel further discussed the outcome of studies that showed that airlines could actually gain from EU ETS. As Damien highlighted, free allocations under EU ETS de facto favour long-haul airlines as they need more fuel to take off and land but airlines have not been vocal about this. Many airlines receive between 80% and 120% of allocations for free of charge until 2020.

Session 6: On our way back to \$150 a barrel? The impact of rising oil prices on air transport and the state of the biofuel industry

Session Moderator: Aaron Heslehurst, News Anchor & Presenter, and **BBC World Television**

Professor Kjell Aleklett, Professor of Physics, **Uppsala University**
Dr. Maurício Emboaba Moreira, Senior Advisor, **GOL Transportes**
Tom Sanchez, Global Team Lead – Risk Marketing, **Shell Trading**

The airline industry is expecting a global fuel bill of US\$ 207 billion this year. Representing between one third and almost half of an airline's operational cost, oil prices and their volatility pose a significant challenge to the airline industry. Is biofuel the white knight? Being used more frequently by the industry in the future, with some recent examples like Air Canada testing recycled cooking oils on its route between Toronto and Mexico City, this alternative source of energy could become an important component of airline operations.

Professor Kjell Aleklett from Uppsala University emphasized that the world's primary energy production is still based on fossil fuels and the small percentage of alternative fuels such as hydro, nuclear and other renewables, will mainly replace coal usage and not oil. Biofuel was therefore realistically the only real possible substitute.

The world currently uses over 30 billion barrels of oil per year (around 82 million barrels a day) out of which 18 billion are produced in the Middle East. Oil importing regions such as Europe, the US, and increasingly Asia generate US\$ 1.8 billion dollars of daily income for the Gulf States at the current price level.

According to IATA's traffic forecast it is clear that aviation will need more fuel in the future. Driven by demand for diesel and petroleum, especially in Europe, many refineries, even the largest in Northern Europe, Preemraff, do not produce any jet fuel, as they focus on diesel, which is in higher demand.

Professor Aleklett's presentation highlighted that future oil consumption will rely on fields, which have not been discovered yet (predicted at 18 billion barrels a year in 2035). Discovery rates of oil fields are stagnant or even slightly declining, and the average field sizes have been decreasing and are likely to continue decreasing in the future. According to the International Energy Agency (IEA), even if discoveries were realized, per day production of crude oil would most likely not be able to exceed the level of 2005.

In addition, in more mature regions, it will not be possible to lift as much oil as needed. Oil companies will have to start drilling deeper to produce oil. Chevron for example had to drill down 8598 meters in the Gulf of Mexico to be able to extract oil for newly discovered resources. There is evidence that despite deeper drilling, oil production has peaked in several regions. Oil production from the North Sea, for example, is projected to decrease considerably over the coming years.

With oil production having plateaued in the last years, fuel importing countries will face a considerable challenge. OECD countries will lose 50% of their oil import to the emerging markets in China, India and the South East Asian nations by 2020. This will have a dramatic effect on their economy. Some airlines have taken matters in own hands – Delta for example has acquired a refinery and has a production and distribution agreement with BP. The airline states that 80% of its fuel needs in the US will be covered by these arrangements.

Tom Sanchez's presentation did not paint a better picture in terms of oil. As oil demand is driven by GDP growth, the expected positive growth in GDP will lead to growing oil demand.

The US currently consumes 22% of worldwide produced oil. In 2000, China consumed half of this in terms of its total annual energy consumption. Although it still consumes less per capital in terms of oil, the country's consumption, despite its much larger population, had risen to the equivalent of the US' total energy consumption by 2010. Both, the US and Chinese consumption rates will not be sustainable at current oil production.

However, demand growth for oil is not consistent. The demand for middle distillates, which represent diesel and jet fuel, correlates much more strongly to GDP growth than gasoline. Gasoline demand is price driven – when price goes up, demand goes down. This is particularly important in the US, which consumes 40% of the world's gasoline.

For the future, focus will have to be on finding alternative ways of satisfying the world's energy needs while simultaneously reducing consumption through increased efficiency. In terms of biofuels the biggest challenge will be to achieve the necessary scale at an affordable price as well to find suitable quality systems in place to deal with the complexity of the biofuel supply chain.

The last presentation by Mauricio Emboaba highlighted that the impact of GDP growth will most likely be much greater on airlines than the growth of oil prices. His concern therefore was much less with price levels but with oil price volatility.

A challenge for route development lays in the fact, that new routes often require one to two years before they are established, after which feasibility studies are out of date when oil prices moved significantly. He emphasized that airlines need to adjust to this new environment. Flexibility in operations and size of aircraft are key factors in achieving this. At a time where the Brazilian carrier GOL still had a much smaller fleet, the airline was able to open a domestic route in only one to two weeks. This entry time has increased significantly since the carrier had grown its fleet. Looking at the profitability of major carriers around the globe shows that airlines with smaller fleet have been much more successful. The need to maintain a small fleet to remain profitable raises the question of how airlines can grow in the future however. Highlighting the case of the Chilean carrier LAN, Mauricio Emboaba showed that through subsidiaries airlines could still grow and not expand their fleets significantly. GOL has followed this approach by setting up its own subsidiary in the Dominican Republic.

As Charles Schlumberger added in conclusion of the session, the focus in dealing with the oil problem lies in tackling low hanging fruit like air traffic control, more efficient aircraft, and other sources not just biofuels.

Session 7: Air transport policies – lessons learnt in liberalization and open skies and the potential challenges that may arise

Session Moderator: Dr. Charles E. Schlumberger, Lead Air Transport Specialist; Transport, Water and Information & Communication Technologies Department, **The World Bank Group**

Boubacar Djibo, Director of Transport Bureau, **ICAO**

Vijay Poonosamy, VP International and Public Affairs, **Etihad Airways** & Chairman, **IATA Industry Affairs Committee**

Chris Zweigenthal, Chief Executive, **Airlines Association of Southern Africa**

Dr. Rafael Echevarne, Director, Economics and Programme Development, **ACI World**

Anil Srivastava, Joint Secretary, **Government of India Ministry of Civil Aviation**

How far have we come and where will the future take us? The last panel of the summit focused on the issue of air transport liberalization.

In a first instance the liberalization of India was discussed. Anil Srivastava explained that India started opening its domestic market in the mid 1990s. This liberalization has been very successful, including the development of local low cost airlines at an annual compound annual growth rate of nearly 18% in the last years. The domestic airline industry currently represents about 60% of traffic. In the international sector, there was still considerable scope for growth as only 2-3% of the population is traveling. The country has however also faced significant challenges such as the downfall of its largest carrier Air India.

Middle Eastern carrier Etihad also recognizes the potential of India as a tourism market. With long haul routes between Europe and India possibly not being viable, the United Arab Emirates (UAE) is perfectly located in terms of geography. Considerable efforts have been made to improve traffic negotiations with the Indian government and the

UAE's negotiating position has strengthened significantly in the past years with the increased attractiveness of Abu Dhabi as a tourism and trade destination. Fortunately the industry and the government are very much in sync with regards to this.

The panel also discussed the need for investment in infrastructure to support the additional traffic demand arising from liberalization. Rafael Echevarne underlined that even in Africa the issue is not basic infrastructure but safety and security standards that need to be in place. It is, however, important to have the support of governments once expansion is needed. Close cooperation between all parties including the airlines and tourism authorities is needed to effectively make the case to government for the industry's needs.

Liberalization has proven very profitable for some countries as the examples of Zambia and South Africa show. The bilateral agreement between the countries formed the basis of the development of low-cost airline Kulula, and brought fares down to the price of a bus ticket. Nonetheless the conclusion of air service agreements is still moving along slowly in some regions. From his own experience in South Africa, Chris Zweigenthal noted that he believes the Yamoussoukro Decision has not taken off because smaller states are frightened of the impact that this could have on their airlines. Boubacar Djibo added that although ICAO focuses on liberalization on a global scale, he sees much more development in regional frameworks similar to the EU, with regional economic commissions taking a lead in liberalizing market access amongst the member States. In the Southern African regional economic organization SADEC, for example, reference is not made to the Yamoussoukro decision anymore but to their own regional regulatory framework. This represents a fundamental change.

Discussions also focused on the agenda of the upcoming air transport conference at ICAO in March 2013. The issue of ownership liberalization will be part of the discussion as the emergence of alliances has changed the situation considerably in the last years. Furthermore, consumer protection as well as safety and security challenges will be prominent topics.

Challenging the panel, Charles Schlumberger highlighted the low number of incidents triggered by safety and security issues in aviation and questioned the high level of investments in this area. As Chris Zweigenthal pointed out, from a consumer perspective, 9/11 created a lasting memory and this can be seen as a reason for continued focus on this issue. Moreover there is still scope for improvements on the African continent, which should be taken into consideration. Anil Srivastava emphasized that in the case of India security is still a large issue but adapting safety and security regimes to the standards of the US would require significant investments and may therefore have negative impacts on the economy.

Access to aircraft parked on the ramp still poses a significant challenge for airlines, and will require improvements from airports. In Rafael Echevarne's opinion, obtaining sufficient funding for airport security is often a political issue. In aviation, airports have to finance costly security themselves through passenger chargers, something that covered by the government in other modes of transport.

The audience also raised the issue of the EU's external aviation policy. As Vijay Poonoosamy emphasized there has been a lot of pressure from European airlines to look at the Gulf carriers as they have become more active in the European market. However, the premises of this new policy are founded on the false impression that European carriers do not have access to the Gulf and that carriers in the Gulf are subsidized by their governments. On the positive side, the recently publicized external aviation policy communiqué by the European Union encourages an open dialogue with regards to liberalization.

Financing of safety and security was also seen as a challenge. Rafael Echervarne pointed out that the issue is mainly with the financing of security. Charles Schlumberger emphasized that he does not actually see the issue in financing but in safety culture and adequate safety management systems. Boubacar Djibo added that it was important that the national civil aviation authorities have the capacity to provide the needed oversight.

In conclusion, Vijai Poonoosamy reminded the audience that aviation is merely a vehicle to provide a link between two places. The value of that link should be recognized by governments and should translate into better air transport policy and liberalization.