

## Policies and Collaborative Partnership for Sustainable Aviation

4 May 2011

**Cape Town, South Africa, 4 May 2011** – The Policies and Collaborative Partnership for Sustainable Aviation report released today at the World Economic Forum on Africa points the way for the aviation industry to reach the ambitious goals it has committed to – carbon-neutral growth from 2020 onward and 50% net carbon reduction by 2050 compared to 2005 levels. The report is the culmination of a year of collaboration among leaders in the aviation, energy and financial services industries, governments, universities and international organizations with the analysis and support of Booz & Company.

The report identifies four key levers to reduce carbon emissions in aviation: improving aviation infrastructure, increasing aircraft R&D, accelerating scale-up of aviation biofuels and implementing market-based measures. The report provides a clear framework for the achievement of a sustainable aviation sector and identifies the most useful policies, partnerships and financing options at each point of the technology lifecycle.

John Moavenzadeh, Head of Mobility Industries at the World Economic Forum, said: “Air traffic is forecast to grow at nearly 5% per year over the next decades. To reach its stated CO<sub>2</sub> emissions goals, the aviation industry must partner with governments and other key stakeholders.” Of the four most promising carbon abatement levers identified, the report emphasizes the crucial importance of new aviation infrastructure in the areas of air traffic control management and airports, and the introduction of aviation biofuels. The report recognizes that it is unlikely that governments will be able to provide all the necessary funds for the implementation of the necessary infrastructure improvements and looks at the involvement of capital markets, private equity and, for developing countries, the multilateral development banks to fill in the financial gaps.

Giovanni Bisignani, Director General and CEO of the International Air Transport Association (IATA), said: “Aviation is united behind the most aggressive climate change targets of any global industrial sector—capping net emissions from 2020 with carbon-neutral growth and a 50% reduction by 2050. It’s not just words. Since 2004 IATA has worked with partners to save 76 million tonnes of emissions. Today’s report endorses our four pillar strategy as the way forward with better technology, efficient infrastructure, effective operations and positive economic measures. Governments must play a responsible role. The priorities are delivering a Single European Sky for more efficient air traffic management, a global approach for economic measures and setting up the fiscal and legal frameworks for the commercialization of sustainable bio-fuels.”

The report identifies biofuels as the “game-changing” technological innovation for decarbonizing the aviation sector. Biofuels have been proven to be a viable alternative to current jet fuel for existing aircraft types and can bypass long aircraft lifetimes that limit the CO<sub>2</sub> efficiency improvement potential of other technological innovations. However, to reach the industry’s target of 50% net carbon reduction by 2050 compared to 2005, 13.6 million barrels of sustainable second generation biofuels, with significantly lower CO<sub>2</sub>-emissions on a lifecycle basis than conventional jet fuel, would be required per day in 2050. This would represent a shift to 90% sustainable biofuels in aviation in 2050.

Jürgen Ringbeck, Senior Vice-President and aviation expert at Booz & Company, sees the largest

challenge in building up the supply of sustainable biofuels and promoting their prioritization for use in the aviation sector. "The sector's move to biofuels requires significant investments to achieve a quantum leap in technology and increase production. The necessary market dynamics will only develop if governments set the right incentives for the agricultural sector, energy producers and the airlines to incubate a global aviation biofuel production system. Due to the early stage of development and high risks involved with aviation biofuels, a new innovative approach of all involved stakeholders along the entire biofuel value chain is required."

For market-based measures such as emissions trading and offsetting, which may offer the opportunity for the aviation industry to cost-effectively reduce its emissions as long as less costly options for emission reduction are available in other sectors, the report states that a global sectoral approach is needed to avoid competitive distortion and negative macroeconomic effects on the industry and the wider global economy and that the mandate for the development of a global approach should reside within the ICAO framework.

Overall, positive incentives (e.g. fiscal incentives) are seen as having a higher potential to increase investment in reducing carbon in the aviation industry than green levies and taxes, which are currently being implemented or discussed in different countries. The report cautions that taxes usually result in a net outflow of funds from the industry that inhibits investment in CO2 reduction projects.

Samer Majali, Chief Executive Officer, Gulf Air, Bahrain said, "positive incentives, such as fiscal ones, aimed at the most appropriate investor in the emission reduction value chain, have the best potential to increase investment in reducing carbon in the aviation industry. Green levies and taxes currently implemented or being discussed in a number of countries are not viable option to achieve industry's CO2 reduction goals."

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