



Sustainable Biofuels for Civil Aviation

An initiative on Sustainable Biofuels for Aviation (SBfA) was launched by the Air Transport Action Group (ATAG), DI Bioenergy, Copenhagen Cleantech Cluster, and Sustainable Biofuels Network with the main objective of facilitating an international public-private collaborative plan and platform for action, a Roadmap 2050, to develop the required sustainable biofuels production capacity for aviation. The SBfA strategy group will take the initiative forward including a follow-up meeting in Mexico in spring 2012 to progress the development of the policy agenda in preparation for Rio+20 and the G20 meetings later in the year.

The Road Map 2050 will include the following areas of action, that were recommended by 3GF delegates as areas which can take biofuels for aviation from small to large commercial scale and thereby support the transition to green growth:

- Harmonizing regulatory environments to ensure that aviation is not materially disadvantaged over other consumers of biofuels (currently, most regulation and policy incentives favor biodiesel over aviation biofuels). Harmonizing sustainability criteria globally across jurisdictions to ensure that sustainably-produced biofuels uplifted in one country is recognized as such at the destination.
- Unlocking access to capital for plant and production facilities (there is currently some \$28 trillion in pension funds worldwide, a new asset class for all green technology investments may be a wise way to utilize these funds).
- Establishing public-private partnerships to narrow the risk of scale up via innovative technology risk insurance, loan guarantees or other financial products that can accelerate the availability of capital or reduce the cost of capital to drive products to scale.
- Investing in further research and development in finding new feedstock, increasing feedstock yield and production processes. Strengthening information exchange at the global and local levels between governments, private sector and the research community on the availability and maturity of different streams of feedstock.
- Collaborating across sectors, investors, companies, including partnerships to ensure high sustainability standards and to provide incentives for airlines to use biofuels from an early stage.

The aviation industry has developed a set of ambitious targets aimed at limiting its climate impact, while enabling it to continue to provide a key vehicle for economic growth. The targets include: improving fleet fuel efficiency by 1.5 per cent per year until 2020; capping net aviation emissions from 2020; and most ambitiously halving aviation carbon emissions by 2050 compared to 2005. Roadmap 2050 is a milestone in these undertakings with special focus on a rapid transition from fossil fuels to a sustainable biofuels based industry.

Core participants

Robert Arendal / Copenhagen Goodwill Ambassador / Sustainable Biofuels Network / **Craig Binetti** / Nutrition & Health President / DuPont / **Robert T. Do** / CEO / Solena / **Haldane Dodd** / Head of Communications / Air Transport Action Group (ATAG) / **Niels Elers Koch** / IUFRO President, Director General, Prof. dr., Danish Centre for Forest, Landscape and Planning / University of Copenhagen / **Frederic Eychenne** / New Energies Programme Manager / Airbus / **Claus Felby** / Professor, Faculty of Science / University of Copenhagen / **Laurel Harmon** / Vice President / Government Relations / LanzaTech / **Oliver R. Inderwildi** / Professor / Smith School of Enterprise and the Environment / University of Oxford / **Flemming J. Jensen** / Executive Vice President / Scandinavian Airlines (SAS) / **Kim Knudsen** / Vice President / Haldor Topsøe / **Jim Lane** / Editor & Publisher / Biofuels Digest / Chairman / American Biofuels Council / **Soo Ken Lee** / Managing Vice President / Korean Air / **Cynthia Menendez** / Refined Products Logistics Supervisor / Petróleos Mexicanos (PEMEX) / **Richard Mills** / Managing Director / Boeing / **Charles Nielsen** / Director Research and Development / DONG Energy / **Martin Porsgaard** / Director / Sustainability and Environment / Scandinavian Airlines (SAS) / **Per Regnarsson** / Managing Partner, CEO / Clean World Capital / **Doris Schroecker** / Policy Officer / Directorate General for Energy and Transport / European Commission / **Rajeev Sharma** / President / Absi Corporation / **Paul Steele** / Executive Director / Air Transport Action Group (ATAG) / **Adam Tomasek** / Managing Director / Borneo and Sumatra / World Wide Fund for Nature (WWF) / **Kristine van het Erve Grunnet** / Head of Secretariat / Danish Bioenergy Association / Confederation of Danish Industry.

Contact person for initiative

Martin Porsgaard / Director / Sustainability and Environment / Scandinavian Airlines (SAS) / Martin.Porsgaard@sas.dk

Robert Arendal / Copenhagen Goodwill Ambassador / Sustainable Biofuels Network / rendal@raa.lu

Kristine van het Erve Grunnet / Head of Secretariat / Danish Bioenergy Association / Confederation of Danish Industry / keg@di.dk