

ECATS in association with FORUM-AE organise the

2nd ECATS Conference on **Making Aviation Environmentally Sustainable**

7-9 November 2016, Athens, Greece

Blending in a core session the

FORUM-AE Climate Change workshop

Following the pattern of the 1st ECATS Conference (Berlin 2013), this scientific conference will give the opportunity to present state-of-the art research, review recent achievements and at the same time will provide a strategic perspective on future directions in environmentally stable aviation. The conference programme will present research in four key areas allowing in-depth discussions and poster presentations.

The **Scientific Programme** covers four key themes:

1. **Alternative fuels for aviation**
2. **Climate impact and mitigation concepts**
3. **Green flights – Climate optimal flight trajectory**
4. **Interdependency and aviation environmental modelling**

Contributions relating to above key themes are welcome. Detailed information on abstract submission and abstract guidelines are available on the ECATS web-site <http://www.ecats-network.eu/events/2nd-ecats-conference>.

During the conference, oral and poster presentations will be possible. A preference (oral/poster) can be given with submission of abstract. Extended abstracts of all presentations will be included in the conference proceedings, which will be available at the conference. After the event selected contributions will be invited to submit a paper for peer-review to a special issue of an international journal.

Important Dates

Abstract submission (300 words):	20 May 2016
Notification of abstract acceptance:	20 June 2016
Early bird registration:	20 July 2016
Extended abstract (4pages):	20 September 2016

Alternative fuels for aviation

The transport sector is under increasing pressure to diversify away from petroleum derived fuels for its energy. For aviation, alternative fuels are the most realistic mitigation option. This session will explore technical, operational and performance challenges and opportunities in achieving this sustainable position. There will be specific focus on the environmental consequences of using the new fuels. Additionally it will seek to identify knowledge gaps to be filled to overcome shortcomings of, or exploit benefits of, alternative fuels.

Climate impact and mitigation concepts

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Aviation contributes to climate change and a joint effort is necessary to ensure both sustainable mobility and growth of aviation. However, large uncertainties remain when quantifying overall climate change from aviation. We focus on contributions which emphasise the need to establish solid knowledge and well-evaluated measures and means, to provide quantitative estimates of aviation climate impact and mitigation concepts. Which approach is best suited to help aviation identify a durable path into the future?



Green flights – Climate optimal flight trajectory

Finding the optimal flight trajectory remains one of the main challenges for air traffic management (ATM). Any trajectory has to comply with a growing list of requirements, amongst others safety and climate impact. Recent advancements in this field are invited which aim to expand current capabilities related to one or more of above mentioned key performance areas. Linkages with the Aviation System Block Upgrades are considered as defined in the ICAO Global Air Navigation Plan.

Interdependency and aviation environmental modelling

Well-balanced sustainable aviation policymaking requires proper assessment of potential economic and environmental impacts of any technical, operational and or market based measure. To facilitate implementation of such aviation environmental policies, a model-based assessment is often applied, ideally with open access to necessary databases. At the conference, European and international perspectives and contributions to integrated modelling and analysis of complex interdependencies and trade-offs will be discussed at air vehicle, airport and or air transport system levels.

Show case for early career researchers

The conference will offer the opportunity for early career researchers, typically having recently completed doctoral R&D to present innovative research initiatives and ideas. A new award for the best presentation (oral/poster) of early career researchers has been launched to celebrate the most inspiring, effective and professional presentation.

Details and participation rules will be available in July 2016 on the ECATS web-site: www.ecats-network.eu

ECATS International Association

From Network to Association In 2005 a network of more than 100 researchers in the domain of aviation and environment was established within the Network of Excellence ECATS (Environmental Compatible Air Transport System). In 2010, the International Association, ECATS IASBL was established in Brussels, Belgium with the objective of helping to make future aviation sustainable.

Association Objectives are to build up expertise, exploit multi-disciplinary platform, organise exchange of knowledge, and to foster the technical, strategic and political debate.

Association Members Research establishments and academia leading in the field of aviation and environment are members of ECATS IASBL. Association is open to new partners with proven expertise in the field of aviation and environment.

ECATS International Association

(c/o DLR) Rue du Trône 98, 1050 Brussels, Belgium

Chair: Dr. Simon Christie, MMU/CATE, UK
chair@ecats-network.eu

FORUM on Aviation and Emissions (& Environment)

The European project **FORUM-AE** is a technical and scientific forum addressing all the issues associated to the aviation environmental concerns linked to emissions: impacts, technical solutions and regulation. It supports the appropriate European research and innovation by giving it the necessary awareness and visibility. It was initiated in July 2013, and has supported various focused technical workshops and analyses. More information may be found on www.forum-ae.eu.

For updated information please contact:

eMail: conference@ecats-network.eu

Or visit the conference on the web:

www.ecats-network.eu/events/2nd-ecats-conference

Scientific Programme Committee

- Alexis Alexiou, NTUA, GR
- Joanna Bauldreay, Shell, UK
- Simon Blakey, USFD, UK
- Paul Brok, NLR, NL
- Simon Christie, MMU/CATE, UK
- Dominique Collin, SNECMA, FR
- Volker Grewe, DLR, DE
- Didier Hauglustaine, IPSL Paris, FR
- Paul Madden, RR, UK
- Sigrun Matthes, DLR, DE
- Gerd Saueressig, Lufthansa, DE
- Xavier Vancassel, ONERA, FR
- Urs Ziegler, FOCA, CH

Organising Committee

- Simon Blakey, USFD, UK (chair)
- Kostas Mathioudakis, NTUA, GR
- Thrassos Panidis, UP, GR
- Nikos Zarzalis, KIT, DE (treasurer)

Conference Organisation

Conference Session Structure The event will be held in plenary sessions, to ensure the full exploitation of interdisciplinary networking and synergies between involved disciplines.

Conference Location The conference will be held in the Titania Hotel, in the heart of Athens, walking distance from Omonia Square. The hotel offers excellent meeting facilities in the heart of this European Capital. A block reservation has been arranged for participants.

Networking Dinner The conference dinner will be held in the Acropolis Museum, preceded by a guided tour in the Museum.

Registration fees

	Before 20/7/16	After 20/7/16
Delegates	390 €	440 €
ECATS/FORUM-AE members	290 €	340 €
Students	250 €	290 €

The registration fee covers access to conference, proceedings, lunches and coffee breaks, icebreaker (Mon 7 Nov 2016), and conference dinner (Tue 8 Nov 2016, Acropolis Museum Athens).



Call for abstracts

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the 2nd ECATS Conference on

**Making Aviation
Environmentally Sustainable**

**Core Session: FORUM-AE
Climate Change workshop**

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Titania Hotel, Panepistimiou 52
Athens, Greece

