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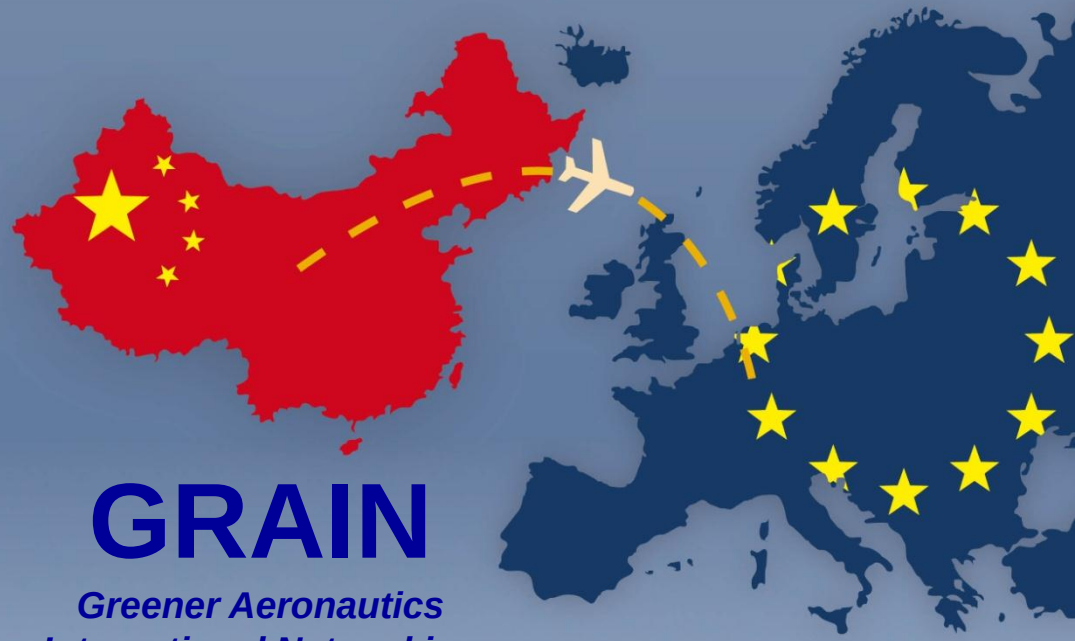

GRAIN

Greener Aeronautics International Networking

Open Greener Horizon Forum 2012

Barcelona, 12th – 14th November 2012

Environmentally Friendly Advanced Modelling, Drag Reduction Technologies, Noise Emission Reduction, Experimentation, Large Scale Simulation for Greener Design in Aeronautics

Organized by

- International Centre for Numerical Methods in Engineering (CIMNE)
- Chinese Aeronautical Establishment (CAE)

In association with European Commission (EC) and the Ministry of Industry and Information Technology of China (MIIT)

Venue: Campus Nord UPC, Barcelona, Spain

For registration please visit:
http://www.cimne.com/grain/Openforum.asp

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Objectives

The Open Greener Horizon Forum focuses on sustainable technologies concerning the environment and the energy supply. Key goals of Europe's Vision for Aviation 'Flightpath 2050' aims to reduce drastically aviation's impact on citizens and the environment. The Vision's ambitious targets by 2050 require technologies and procedures allowing a 75% reduction in CO2 emissions, a 90% reduction on NOx emissions and the perceived noise emission of flying aircraft reduced by 65%. China, as the country with the fastest growth rate in civil aviation in the last three decades, has similar needs and requirements.

Keynote speakers from industry, research and public institutions will share their perspectives on the new global challenges of eco-efficiency in the context of 'Flightpath 2050': Impact of aviation emissions, future opportunities of developing technologies for new environmentally friendly aircraft.

The technical sessions will address emerging technologies in specific research areas such as modelling and large scale computational methods, as well as technologies for reducing aircraft emission, drag, noise, etc. The new 'Strategic Research & Innovation Agenda' for Europe's aviation, published in Sept. 2012 represents the suitable reference for the new technological developments.

In panel discussions, also with the Forum audience, the Open Greener Horizon Forum will address current research issues and technology trends for aerospace to identify efficient and coherent investments in research and innovation for new greener aircraft. In particular those technology topics should be identified that represent a 'win-win' and are of mutual interest for the research cooperation between partners from Europe and China.

Lecture sessions/ Panel discussions

- Special sessions of invited speakers
- Key Greening Technology (KGT) Sessions
    - Session 1: Emission Reduction Technologies
    - Session 2: Drag Reduction Technologies
    - Session 3: Noise Emission Reduction
    - Session 4: Environmentally Friendly Materials and Structures
    - Session 5: High Performance Computing for Aeronautical Applications
- MARS Project Session: Flow Control Technologies
- Synthesis session on future green challenges

Each Key Greening Technology Session will consist of an introduction of the KGT chairperson, two presentations followed by a report on the KGT findings and a panel discussion with the speakers and academic/industrial experts.
A synthesis session with the participation of academic, industrial and governmental institutions will conclude the findings of the event.

EU-China Day on Research & Innovation Policy in Aviation

Senior representatives of industry and research from the Ministry of Industry and Information Technology (MIIT) and the European Commission (EC) will address future needs and perspectives for Aviation. Possibilities for co-operation in research and innovation will be tackled.

Expected outcomes of the GRAIN 2012 Forum

- Identify technologies roadmaps for greening aviation in particular in the areas of innovative large scale modelling, simulation and optimization instruments,
- Identify multidisciplinary strategies for the implementation of methods and tools targeting greener aircraft and aero-engine design,
- Intensify the ways of win-win co-operation and dissemination of relevant knowledge for greening,
- Assess the progress of on-going joint EU-China research activities,
- Provide inputs on candidate technology topics for future EU-China research co-operation in aviation.

Who should attend?

The forum will be of interest to engineers and researchers involved in areas of greening technologies for aviation as well as for experts, decision-makers and officials interested in aeronautics co-operation between China and Europe.