This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 723525

JETSCREEN

Workshop

„Maximize sustainable aviation fuel benefits beyond CO_2 reduction“

JETSCREEN

Jet Fuel **Screen**ing and Optimization

(Jun 2017 – Jun 2020)

Coordinator: Bastian Rauch (DLR)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 723525

JETSCREEN Purpose

- Support the development and deployment of **technically suitable**, **truly sustainable** and **commercially viable** aviation fuels (today: true Sustainable Aviation Fuels)

A project gathering **14 partners** from **4** **European countries:**

DLR Deutsches Zentrum für Luft- und Raumfahrt German Aerospace Center

AIRBUS

ZODIAC AEROSPACE

SAFRAN

The University Of Sheffield.

ARTTIC INTERNATIONAL MANAGEMENT SERVICES

CERFACS

MTU Aero Engines

Manchester Metropolitan University

POLITECNICO MILANO 1863

Rolls-Royce

ifp Energies nouvelles

ONERA THE FRENCH AEROSPACE LAB

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Major challenges

I. Limited availability of true Sustainable Aviation Fuels

technically suitable

Fuel affects 100 properties describing aircraft operability and performance

truly sustainable

CO_2 emissions and non-CO_2 impacts
ILUC

commercially viable

RED
ETS, CORSIA
Costs of approval
Feedstock

How might we maximize the benefits and applicability of Sustainable Aviation Fuels now and in the future?

II. Safety first! challenges speed and extend of progress

III. Very high complexity that hinders effective decision making

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How might we maximize the benefits and applicability of Sustainable Aviation Fuels now and in the future?

JETSCREEN

JETSCREEN Vision

- Development of advanced and **reliable design tools capturing accurately fuel-related effects** on airframe and aero-engine, delivered with low cost small scale experimental and model-based testing
  → **Support and streamline approval of new sustainable aviation fuel pathways**
  → **Enable design of fuel-flexible aircrafts optimized for SAF,**
- Development of a **fuel screening and optimization platform/framework** incorporating the distributed design tools and generic experiments
  → **Enable holistic fuel assessment and optimization**
- Provide technical data to explore risks and benefits of **near drop-in fuels***
  → **Maximize Sustainable Aviation Fuel added values**

** Near drop-in fuels are currently out of specification and might require minor modifications on the aircraft and fuel infrastructure*

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Workshop Today
Maximize sustainable aviation fuel benefits beyond CO_2 reduction

- How might we mitigate aviation fuels impact on climate change and environment?

  Session 1 panelists:

  M. Kousoulidou (EC), K. Maniatis (EC), V. Grewe (DLR), O. Penanhoat (JETSCREEN, Safran Aircraft engines)

- How might we support the development, optimization and approval of promising aviation fuel production pathways?

  Session 2 panelists:

  C. Lewis* (JETSCREEN, University of Sheffield), A. Sizmann (Bauhaus Luftfahrt), L. Rosendahl (Aalborg University), R. Wolhuter (Sasol), P. Svennerberg (Haldor Topsoe), B. Rauch (JETSCREEN, DLR)

  **on behalf of M. Rumizen (FAA)*

- How might we challenge alternative aviation fuels specifications to increase the scope of approved material?

  Session 3 panelists:

  J. Heyne (University of Dayton), D. Parmenter (JETSCREEN, Airbus),

  N. Jeuland (JETSCREEN, Safran), S. Blakey (JETSCREEN, University of Sheffield)

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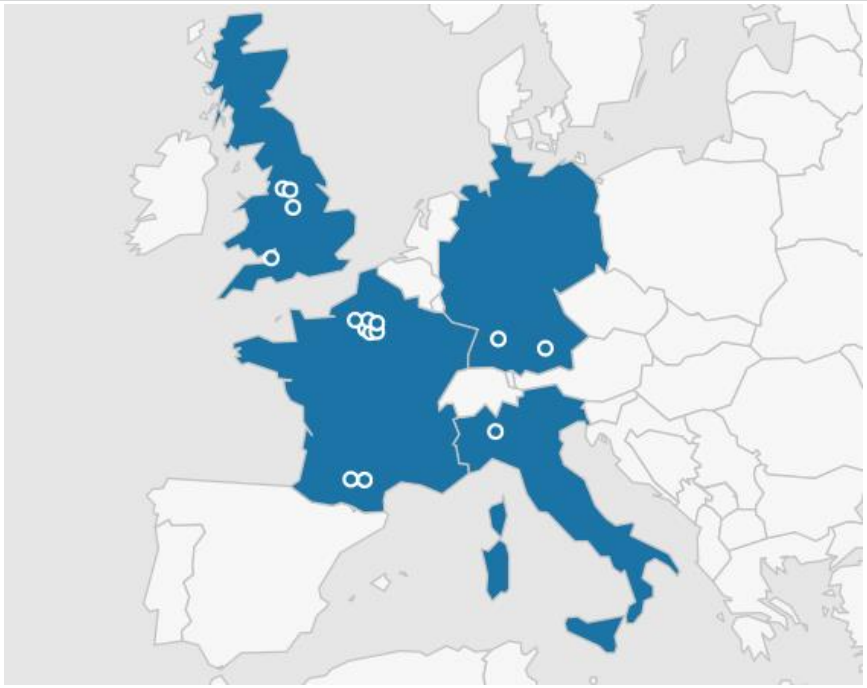
JETSCREEN

Coordinator:
DLR

Contact persons:
Patrick Le Clercq and Bastian Rauch

Address:
Pfaffenwaldring 38-40
D-70569 Stuttgart
GERMANY

Email:
maroto@arttic.eu



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