

PROJECT

ALTERNATE

ASSESSMENT ON ALTERNATIVE AVIATION FUELS DEVELOPMENT

Funding: European (Horizon 2020)

Duration: Jan 2020 - Dec 2022

Status: Ongoing

Total project cost: €2,600,387

EU contribution: €2,600,387



Call for proposal: H2020-MG-2019-SingleStage-INEA

[CORDIS RCN : 226572](#)

Objectives:

It is widely accepted that the use of sustainable fuels, with a Life-cycle carbon footprint substantially smaller than the present fossil-origin kerosene, is the most promising and probably the only short-medium time measure allowing the aviation industry to reduce its emissions, helping to reach 2015 Paris Agreement targets.

During the last 10 years, many tests have been done with different drop-in organic products with high level of success. Present commercial aircraft engines are certified for using a mix of up to 50% of some of these new products. More additional research is still going on the convenience of developing new feedstocks and on their potential climate change impact.

The International Civil Aviation Organization (ICAO) is now discussing the best way to standardise the Life-cycle Analysis (LCA) of the most readily available products and what is the best certification procedures. This process is needed in order to apply CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation), approved in October 2016, intending to stabilize international aviation carbon dioxide (CO₂) emissions at 2020 levels.

However, none of those new organic-origin fuels has proved the means to be produced in an economically competitive way versus fossil kerosene. It is generally accepted that some type of incentive mechanism needs to be implemented to make sustainable fuel attractive for the airlines in addition to the CORSIA and European Trading System provisions.

As the result of this Chinese and European cooperation proposal, some possibilities appear for a wider aviation sustainable fuel utilisation, considering both technical and economic areas, including the possible use of more feedstocks and production pathways than the existing ones. New fuel candidates will be evaluated in this project according to improved modelling methods, considering LCA optimization, climate change effects and technical and economic consequences of their use.

Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

Universidad Politécnica De Madrid

Address:

Avda. Ramiro de Maeztu, 3
28040 MADRID

Spain

Organisation Website:

<http://www.upm.es>

EU Contribution: €418,250

Partner Organisations:

Universiteit Hasselt

Address:

MARTELARENLAAN 42
3500 HASSELT
Belgium

Organisation Website:

<http://www.uhasselt.be>

EU Contribution: €295,228

Zodiac Aerosafety Systems

Address:

RUE PIERRE CURIE 61
78370 PLAISIR
France

Organisation Website:

<http://www.zodiacaerospace.com>

EU Contribution: €150,159

Safran Sa

Address:

2 Boulevard Du Gal Martial Valin
75015 Paris
France

Organisation Website:

<http://www.safran.com>

EU Contribution: €301,373

Office National D'etudes Et De Recherches Aerospatiales

Address:

CHEMIN DE LA HUNIERE
91120 PALAISEAU
France

Organisation Website:

<http://www.onera.fr>

EU Contribution: €600,269

Airbus Operations Limited

Address:

New Filton House, Filton
BRISTOL
BS99 7AR
United Kingdom

Organisation Website:

<http://www.airbus.com>

EU Contribution: €232,347

Iata Espana SI Sociedad Unipersonal**Address:**

PASEO DE LA CASTELLANA 95, 5
28046 MADRID
Spain

Organisation Website:

<http://www.iata.org>

EU Contribution: €117,825

Internationales Institut Fuer Angewandte Systemanalyse**Address:**

Schlossplatz 1
2361 Laxenburg
Austria

Organisation Website:

<http://www.iiasa.ac.at>

EU Contribution: €324,688

Centre Internacional De Metodes Numerics En Enginyeria**Address:**

C Gran Capitan, Edifici C1, Campus Nord Upc Sn
8034 Barcelona
Spain

Organisation Website:

<http://www.cimne.com>

EU Contribution: €160,250

Technologies:

Alternative fuels
Alternative aviation fuels

Development phase: Research/Invention

STRIA Roadmaps: Low-emission alternative energy for transport

Transport mode: Air transport

Transport sectors: Passenger transport, Freight transport
Environmental/Emissions aspects, Other

Transport policies: specified

Geo-spatial type: Other