



EU-Latin America Cooperation on Civil Aviation  
Cooperación entre La Unión Europea y América Latina  
en Materia de Aviación Civil



# P/12 Agenda Item 7 SAF policies in Europe

Dr. I. Gomez  
27 June 2023 Varadero (Cuba)  
NACC/DCA/11

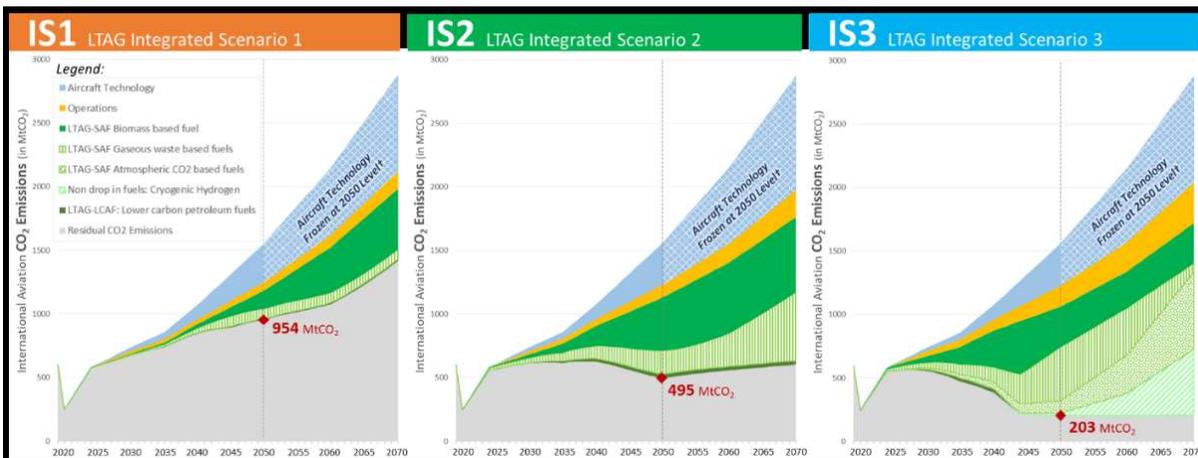
**Your safety is our mission.**

The project is funded by the EC and implemented by EASA

An Agency of the European Union

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## Introduction and context

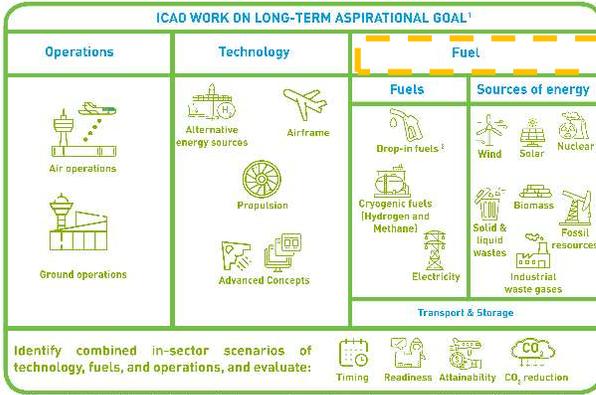


<https://www.icao.int/environmental-protection/Pages/LTAG.aspx>

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# Introduction and context



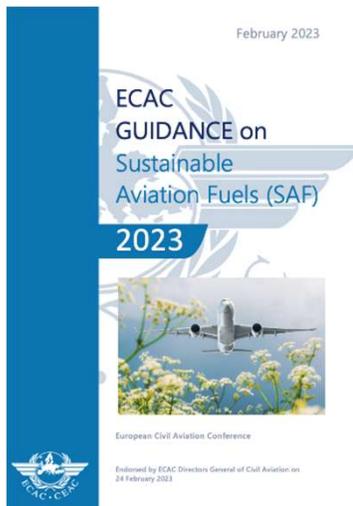
\*This work should identify and evaluate existing, emerging, and innovative in-sector measures in technology, fuels and operations, and their enablers, including information of probable costs. This will assist in identifying gaps, and information and expertise needed, in order to complete a thorough assessment of all in-sector CO<sub>2</sub> reductions for international aviation. This should include timing, readiness, attainability and the quantity of CO<sub>2</sub> reduction possible, based on a feasible roll out over the aviation sector.  
 \*\*Sustainable Aviation Fuels (SAF), Low Carbon Aviation Fuels (LCAFs), E-Fuels. Icons made by Freepress from www.flaticon.com

→ SAF and alternative energies are the main contributors for reaching the Net Zero 2050:

- ‘Zero’ fossil CO<sub>2</sub> in flight and savings overall the life cycle
- Reduce non-CO<sub>2</sub> effects (contrails)
- Diversify supplies
- Do not modify range, seat capacities nor infrastructures



# CEAC – guía sobre SAF



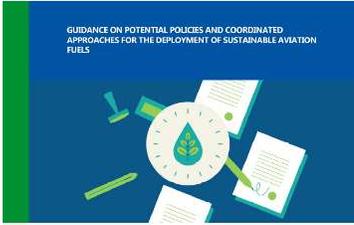
- Task group at the environment group (EAEG) of ECAC (44 States)
- Formed by 29 experts from 13 ECAC States and three organisations (EASA, EUROCONTROL, and the EC)
- Workshops with industry stakeholders
- Executive guide, focused in decision making



# ECAC – Guidance on SAF



INTERNATIONAL CIVIL AVIATION ORGANIZATION



ICAO COMMITTEE ON AVIATION ENVIRONMENTAL PROTECTION  
JUNE 2022



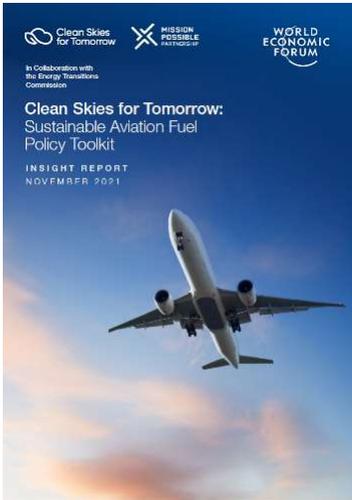




In Collaboration with the Energy Transitions Commission

**Clean Skies for Tomorrow:  
Sustainable Aviation Fuel  
Policy Toolkit**

INSIGHT REPORT  
NOVEMBER 2021





International Civil Aviation Organization

AGL/307/004  
EX-21  
Sustainable  
Fuel & SAF

INFORMATION PAPER

ASSEMBLY — 41ST SESSION

EXECUTIVE COMMITTEE

Agenda Item 17: Environmental Protection – International Aviation and Climate Change

**A POLICY VISION FOR PROMOTING THE SCALE-UP OF  
SUSTAINABLE AVIATION FUELS (SAF)**

(Presented by the International Transport Forum (ITF), Secretariat and Norway)

EXECUTIVE SUMMARY	
<b>Strategy:</b>	This information paper aligns to the Strategic Objective of Environmental Protection.
<b>Objective:</b>	None.
<b>Financial implications:</b>	None.
<b>References:</b>	<p>AESA (2021) Plan de acción sobre reducción de emisiones de CO<sub>2</sub> del sector aéreo internacional en España. Agencia Estatal de Seguridad Aérea. <a href="#">link</a>.</p> <p>ANAC (2021) Plan de acción del estado argentino para la reducción de emisiones de CO<sub>2</sub> en el transporte. Agencia Civil Aeronáutica. <a href="#">link</a>.</p> <p>EC (2021) ReFuelEU Aviation. European Commission. <a href="#">link</a>.</p> <p>ICAO (2021) Declaration of the second conference on aviation and alternative fuels. International Civil Aviation Organization. <a href="#">link</a>.</p> <p>ICAO (2021) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). International Civil Aviation Organization. <a href="#">link</a>.</p> <p>London (2022) FuelEU Pilot on hydrogen. FuelEU Pilot on hydrogen. <a href="#">link</a>.</p> <p>Research Institute (2021) Technological Roadmap for Hydrogen. <a href="#">link</a>.</p> <p>The White House (2021) Biden Administration Advances the Future of Sustainable Fuels in American Aviation. The White House. <a href="#">link</a>.</p> <p>UK Government (2022) Mandating the use of sustainable aviation fuels in the UK. UK Government. <a href="#">link</a>.</p>



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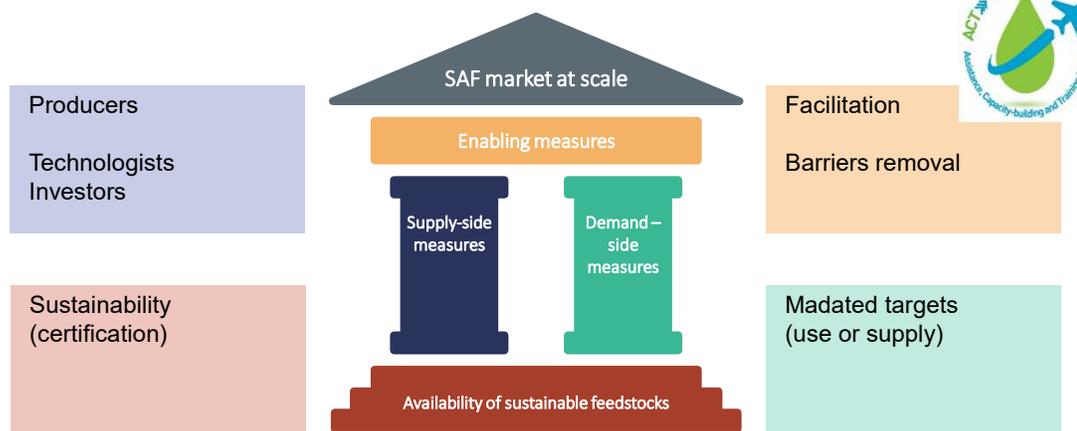
## Guidance's purposes



- ✓ Promote technical understanding;
- ✓ identify SAF potentials and possible barriers;
- ✓ share information about the policy landscape in different European States;
- ✓ provide a wide overview of possible policy options; and
- ✓ provide best practices and key policy recommendations to set harmonised implementation approaches.

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## Policy options



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## Examples – supply measures



10  
options

- **Innovation funds**
  - Horizon Europe – european research program
- **Contracts for difference**
  - SDE++ program (the Netherlands)
  - EU ETS SAF allowances
- **Combining grants and soft loans**
  - United Kingdom Green Fuels, Green Skies (GFGS) Competition
  - Brazil's Renovabio Programme
- **Tax incentives**
  - Blender's Tax Credit (BTC) (USA)
  - France –1% SAF mandate
  - Brazil's National Biodiesel Production and Use Programme
- ...

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## Section III: Key policy recommendations

- Create SAF national **strategies** and implementation **plans**.
- Develop national SAF **roadmaps** or transition paths.
- Stablish **targets** and **create certainty** to mobilize investment.
- Guarantee sustainability with **credible emissions reductions** and generate **social trust**.
- Select the more suitable **policy or set** of policies (supply, demand, market).

## Targets and actions in the EU

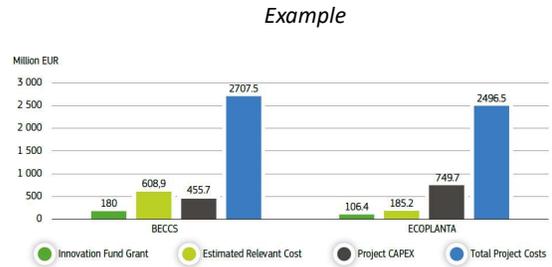
- **European Green Deal:** the EU aim to be **climate neutral in 2050**.
- Intermediate target: reduce emissions by at least **55% by 2030** (Fit for 55).
- Actions across **all sectors** of the economy, including **air transport**.



- Specific targets for aviation at the regulation\* **ReFuelEU Aviation**
- R&D support: **Horizon Europe, Innovation Fund, InvestEU**
- **EU taxonomy.** Taxonomy for *green investment* to facilitate access to finance
- Incentives to reduce the price gap between fossil and SAF (up to €2 bn)
- **SAF Clearing House** to bring new SAF pathways to the market (+US y UK)
- Booster **industrial cooperation** (Renewable and Low-Carbon Fuels Value Chain Industrial Alliance (RLCF))
- **Net Zero Industry Act** to strengthen EU net-zero technology products manufacturing ecosystem



# Targets and actions in the EU



ECOPLANTA

Methanol from G-FT of MSW

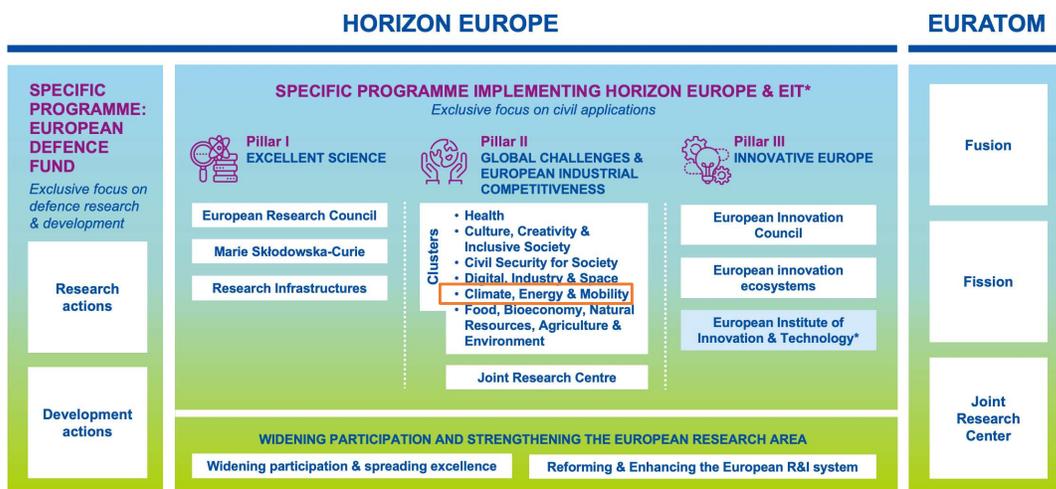
CAPEX € 749 729 639

TOTAL PROJECT COSTS € 2 496 472 661

GHG EMISSIONS AVOIDANCE 3.4 Mt CO2eq



# Targets and actions in the EU



# Targets and actions in the EU

## HORIZON-CL5-2023-D3-01-06

Demonstration of advanced biofuel technologies for aviation and/or shipping



Cluster 5 – 2023  
Destination 3 (Sustainable,  
secure and competitive  
energy supply)



### TYPE OF ACTION

- IA –Innovation Action
- Expected TRL 6-7 by the end of the project



### EU CONTRIBUTION

- Per project: 9 M€
- Total: 18 M€



### TIMING

- Call opening: 13 December 2022
- Call closing: 30 March 2023

## HORIZON-CL5-2023-D3-01-07

Demonstration of synthetic renewable fuel for aviation and/or shipping



### TYPE OF ACTION

- IA –Innovation Action
- Expected TRL 6-7 by the end of the project



### EU CONTRIBUTION

- Per project: 9 M€
- Total: 18 M€



### TIMING

- Call opening: 13 December 2022
- Call closing: 30 March 2023



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# Targets and actions in the EU

## Who is eligible for funding?



### EU COUNTRIES

- Member States (MS) including their outermost regions.
- The Overseas Countries and Territories (OCTs) linked to the MS.



### NON-EU COUNTRIES

- Countries associated to Horizon Europe (AC).
- Low and middle income countries: See [HE Programme Guide](#).
- Other countries when announced in the call or exceptionally if their participation is essential.



### SPECIFIC CASES

- Affiliated entities established in countries eligible for funding.
- EU bodies
- International organisations (IO):
  - International European research organisations are eligible for funding.
  - Other IO are not eligible (only exceptionally if participation is essential)
  - IO in a MS or AC are eligible for funding for Training and mobility actions and when announced in the call conditions.



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## International cooperation

- **EU support to the LTAG** for international aviation of net-zero carbon emissions by 2050 adopted at the 41<sup>st</sup> ICAO Assembly.
- EU fully committed to support SAF production around the world.
- **SAF capacity building** projects:
  - EU capacity building projects on sustainable aviation, including on SAF (budget of €21 million since 2014).
  - Upcoming projects of €4 million under ACT-SAF:
    - implemented with ICAO and EASA
    - feasibility studies and policy development support to foster SAF.



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## International cooperation

EASA Sustainable Aviation Fuels  
Portfolio

ACT-SAF and  
International Cooperation



### Technical cooperation projects



- **Objectives:**
  - Foster dialogue and regional cooperation between Aviation Authorities
  - Increase knowledge and mutual awareness about aviation best practices
  - Complementary instrument to address global challenges (e.g. net zero CO2 emissions by 2050)
- **Activities on SAF:**
  - Raise awareness and understanding on SAF with targeted capacity building

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# International cooperation

EASA Sustainable Aviation Fuels Portfolio

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ACT-SAF and International Cooperation

**EU-Latina America and Caribbean Aviation Partnership Project**

- Decarbonisation of aviation
- CORSIA Implementation
- Sustainable Aviation Fuels

**CORSIA Caribbean**

- CORSIA Implementation

**North Africa - ETAP**

- Exploratory workshop (June)

**EU-South Asia Aviation Partnership Project II**

- CORSIA Implementation
- State Action Plans
- Sustainable Aviation Fuels
- CO2 eligible units
- New technologies
- Carbon markets

**ACT-SAF Projects (India)**

- Sustainable Aviation Projects

**EU-North Asia Aviation Partnership Programme**

- Global Sustainable Aviation Strategies
- Sustainable Aviation Fuels
- Policy Trends
- New Technologies

**Pacific Islands States**

- CORSIA Implementation
- Support on State Action Plan

**CORSIA Africa**

- CORSIA Implementation
- Emission data management tools
- Carbon markets

**SAATM and ACT-SAF Projects**

- Sustainable Aviation Projects (ENV action)

**EU-South East Asia CCCA CORSIA Project**

- CORSIA Implementation
- Support on State Action Plan
- Emission data management tools
- Sustainable Aviation Fuels
- CO2 emission units (programmes)
- Environmental Management Systems

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# International cooperation

EASA Sustainable Aviation Fuels Portfolio

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ACT-SAF and International Cooperation

**Duration:** within 72 Months starting from Q3-2023 (indicative)

**Beneficiaries:**

**Inception Phase** aiming at July/August 2023

**Budget:** 4 M€ (1,6 M€ ICAO – 2,4 M€ EASA)

**Contracting Authority:** DG-INTPA

**Implementing Partners:** ICAO and EASA – 2 distinctive projects

**Partner countries (list still under discussion):**

1. India (ICAO + EASA)
2. Burkina Faso (EASA)
3. Cameroon (ICAO + EASA)
4. Côte d'Ivoire (EASA)
5. Egypt (ICAO + EASA)
6. Equatorial Guinea (ICAO + EASA)
7. Ethiopia (ICAO + EASA)
8. Gabon (ICAO + EASA)
9. Kenya (EASA)
10. Mauritania (ICAO + EASA)
11. Mozambique (ICAO + EASA)
12. Morocco (EASA)
13. Nigeria (EASA)
14. Rwanda (EASA)
15. Senegal (ICAO + EASA)
16. South Africa (ICAO + EASA)
17. Tunisia (EASA)

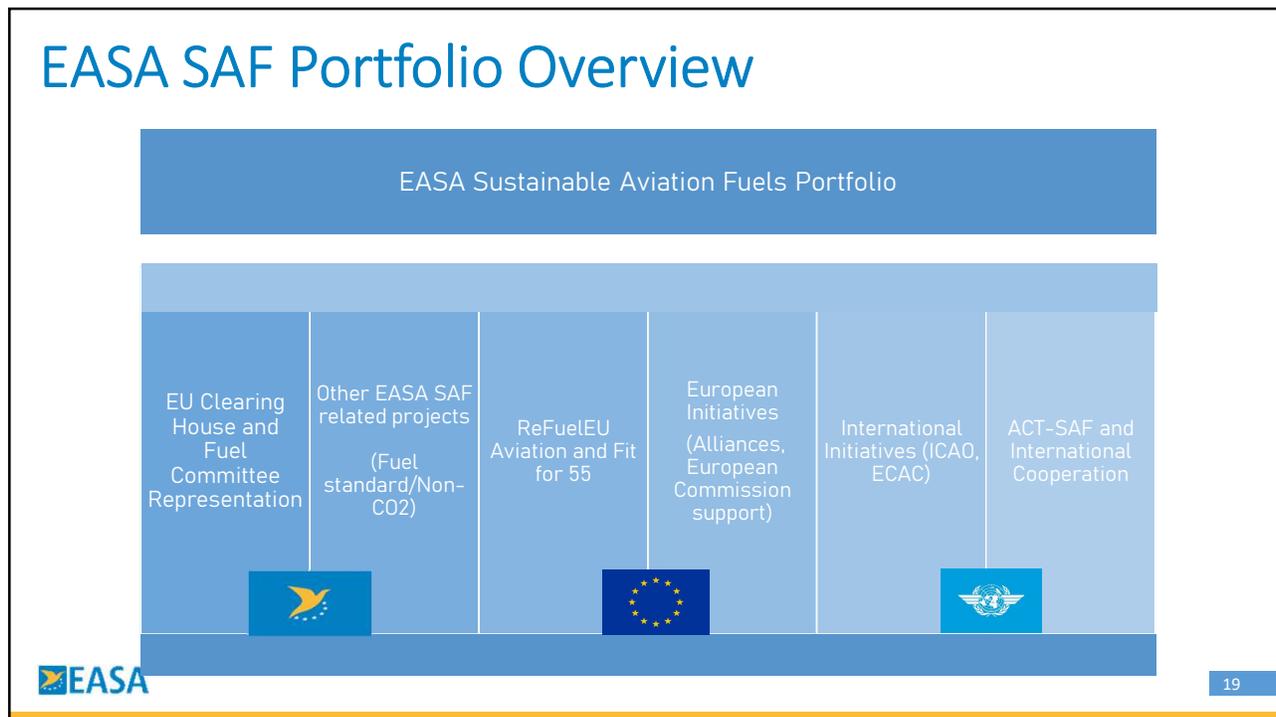
**Objectives/activities** (split between EASA and ICAO)

- **Feasibility studies** – Bilateral Studies (ICAO)
- **Promotion of regional policy dialogues on mitigating GHG and on the role SAF** – Regional Workshops, Conferences (EASA)
- **Implementation of environmental standards** (CORSIA, SAF) – Regional/Bilateral Workshops, Trainings (EASA)
- **Fostering local SAF value chains and creation of national/regional SAF alliances** – Bilateral Consultancy, Facilitation Events (EASA)
  - **Support economic entities in obtaining sustainability and technical certification for SAF** - Regional, Bilateral Workshops (EASA)
- **Development of national and/or regional policies** – Regional, Bilateral Consultancy, Facilitation Events (ICAO-EASA)

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## EASA SAF Portfolio Overview



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**EASA**  
European Union Aviation Safety Agency

EU-Latin America Cooperation on Civil Aviation  
Cooperación entre La Unión Europea y América Latina  
en Materia de Aviación Civil




Muchas gracias por su atención – *Thank you for your attention*

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**Your safety is our mission.**

An Agency of the European Union 

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