

Update on Sustainability at EASA

ICF

March 2024

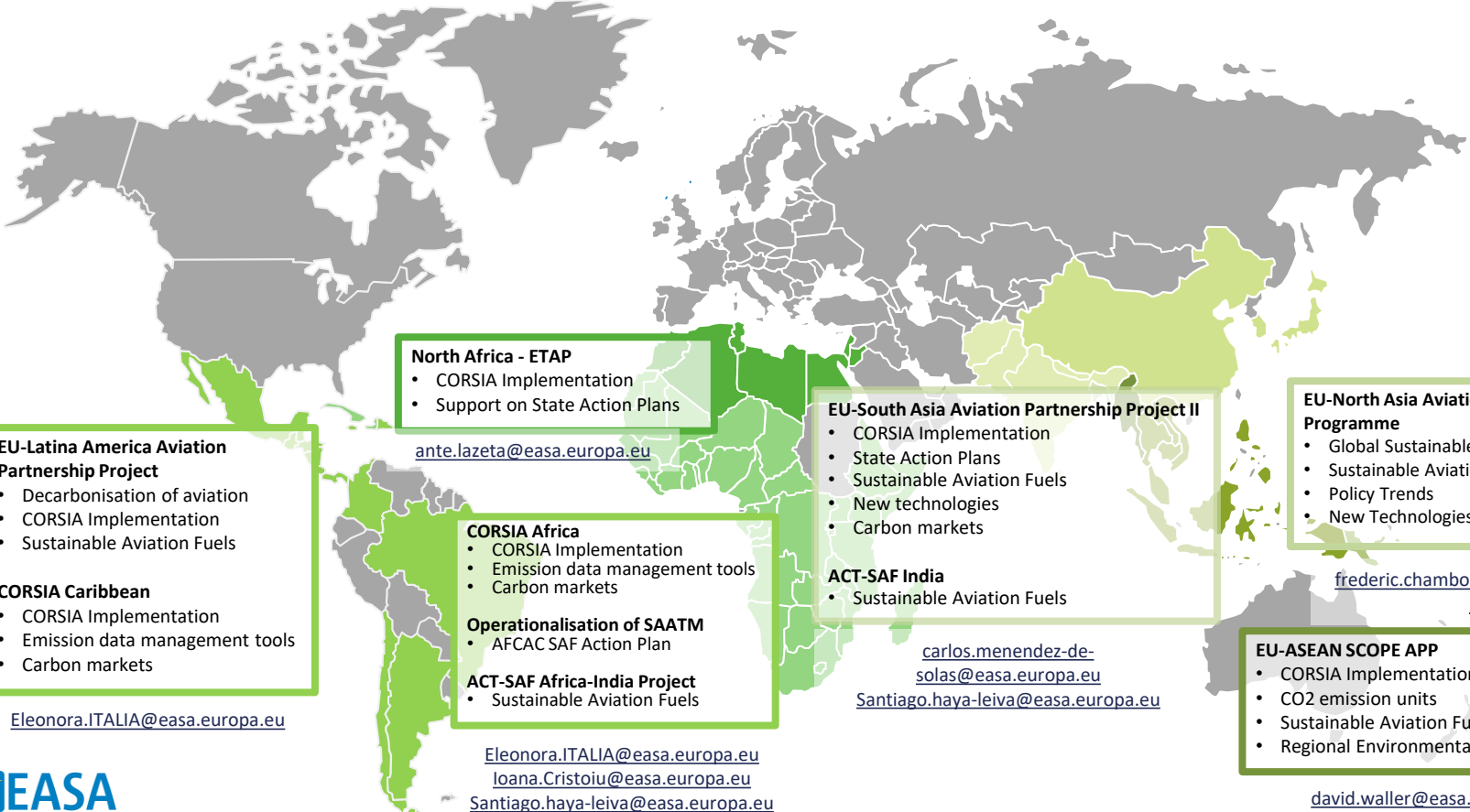
Working for sustainable aviation.
Your safety is our mission.

European Green Deal

- **European Climate Law** turned political commitment for EU to be climate neutral in 2050 into a legal obligation to trigger investment.
- Intermediate targets:
 - reduce emissions by at least **55% by 2030** (vs 1990 levels)
 - EC proposal of **90% by 2040**.
- Reaching these target will require **action by all sectors** of our economy, including transport (90% emissions reduction by 2050).



Technical Cooperation on Sustainability – EU/EASA



The map highlights several regions in green, each associated with a specific technical cooperation project. The regions are: North Africa, Latin America, the Caribbean, Africa, South Asia, North Asia, and ASEAN. Each region has a corresponding text box listing the project name, key activities, and contact information.

EU-Latina America Aviation Partnership Project

- Decarbonisation of aviation
- CORSIA Implementation
- Sustainable Aviation Fuels

CORSIA Caribbean

- CORSIA Implementation
- Emission data management tools
- Carbon markets

Eleonora.ITALIA@easa.europa.eu

North Africa - ETAP

- CORSIA Implementation
- Support on State Action Plans

ante.lazeta@easa.europa.eu

CORSIA Africa

- CORSIA Implementation
- Emission data management tools
- Carbon markets

Operationalisation of SAATM

- AFCAC SAF Action Plan

ACT-SAF Africa-India Project

- Sustainable Aviation Fuels

Eleonora.ITALIA@easa.europa.eu
loana.Cristoiu@easa.europa.eu
Santiago.haya-leiva@easa.europa.eu

EU-South Asia Aviation Partnership Project II

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

ACT-SAF India

- Sustainable Aviation Fuels

carlos.menendez-de-solas@easa.europa.eu
Santiago.haya-leiva@easa.europa.eu

EU-North Asia Aviation Partnership Programme


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

frederic.chambon@easa.europa.eu

EU-ASEAN SCOPE APP

- CORSIA Implementation
- CO2 emission units
- Sustainable Aviation Fuels
- Regional Environmental Reporting

david.waller@easa.europa.eu

 **EASA**

Focus on Sustainable Aviation Fuels



- 1. Uptake of Sustainable Aviation Fuels** will be crucial in the years to come to meet the European Green Deal goals.
- 2. EASA new regulatory remits and flanking measures** will give the Agency and the European Institutions more clarity on the use of SAF within the EU and associated emission reductions.
- 3. Safety and Sustainability** are key pillars of the Agency's remit.

Objectives of ReFuelEU Aviation



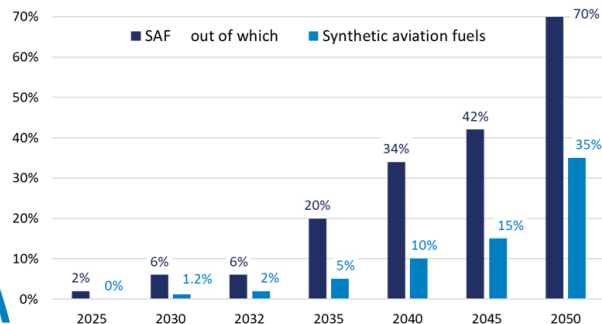
Foster the ramp-up of the SAF supply in the EU and ensure the availability of SAF to decarbonise aviation



Guarantee a level playing field in aviation through a harmonised EU approach



Ambitious EU-wide binding shares and realistic ramp-up 2025-2050



Other elements



New environmental label



Promote infrastructure for zero-emission aircraft



Fuel composition information

EASA remits under ReFuelEU Aviation



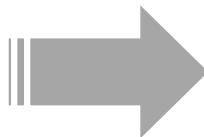
Council of the
European Union



European Parliament



The final text that was published the 31st October, includes **new mandates for the EASA**.



New mandates

Art.8

Monitoring and reporting tool for Aircraft Operators of the fuel uplift and SAF purchase, and associated emission reductions in the Union airports

Art.13

Publication of an **annual report** stating the regulation compliance status, the SAF and fuel supplied, characteristics and other relevant information

Art.14

Implementation of a voluntary **environmental labelling scheme**

Milestones 2024 for EASA

SAF initiatives

- “Sustainable safe” integrated Agency SAF strategy
- ReFuelEU Aviation – 1st SAF Market Report & cooperation with Member States
- Fuel Standards: Assessment Report of current system
- Clearing House: Final Report

European Aviation Environmental Report 2025 & Recommendations

International Co-operation (Launch of the ACT-SAF programme)

Technical Expertise to the European Commission (e.g. Support Taxonomy regulation – out)

Environmental Labelling for Aviation

(Adoption Implementing Regulation to launch the labelling scheme in 2025)

Aircraft Environmental Certification

(Noise certification of eVTOL - CO2 certification work)

Aircraft Environmental Standards

(Support to ICAO CAEP/13 work programme)

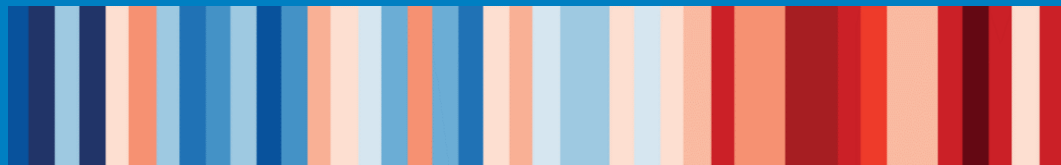
Research & Innovation

(In particular in the field of Non-CO2)



Back-up

www.easa.europa.eu/environment



easa.europa.eu/connect



Promoting sustainable aviation.
Your safety is our mission.

ReFuelEU Aviation

Working for sustainable aviation.
Your safety is our mission.

Scope and obligations of the Regulation



Aviation fuel suppliers

Who

All aviation fuel suppliers supplying to Union airports

What

- a) to **supply increasing amounts** of SAF at each Union airport
- b) with **flexibility** 2025-34



Union airports

≥ 800 000 passengers
≥ 100 000 tonnes freight
Opt-in for airports below threshold, and those in outermost regions

to **facilitate** access to SAF and other sources of clean energies



Aircraft operators

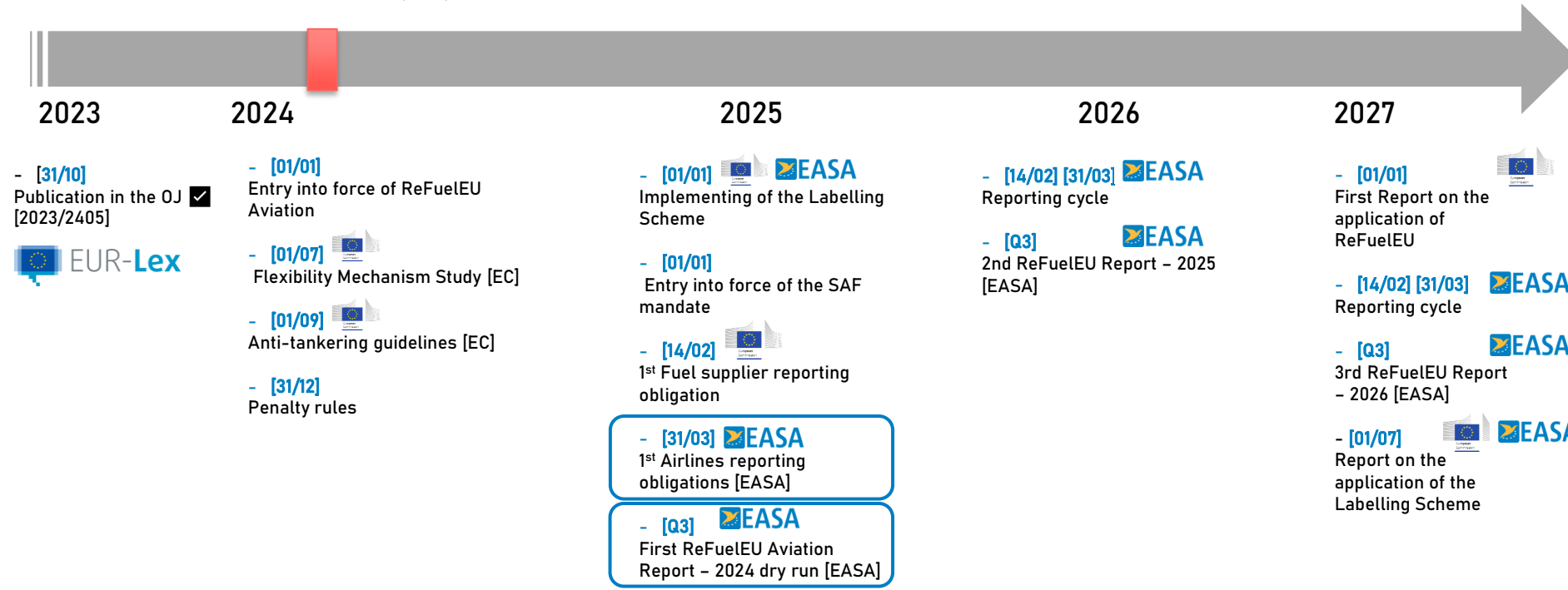
> 500 passengers flights
> 52 all-cargo flights
Opt-in for other commercial flights and for non-commercial flights

to uplift aviation fuels at Union airports **without 'tankering' practices**



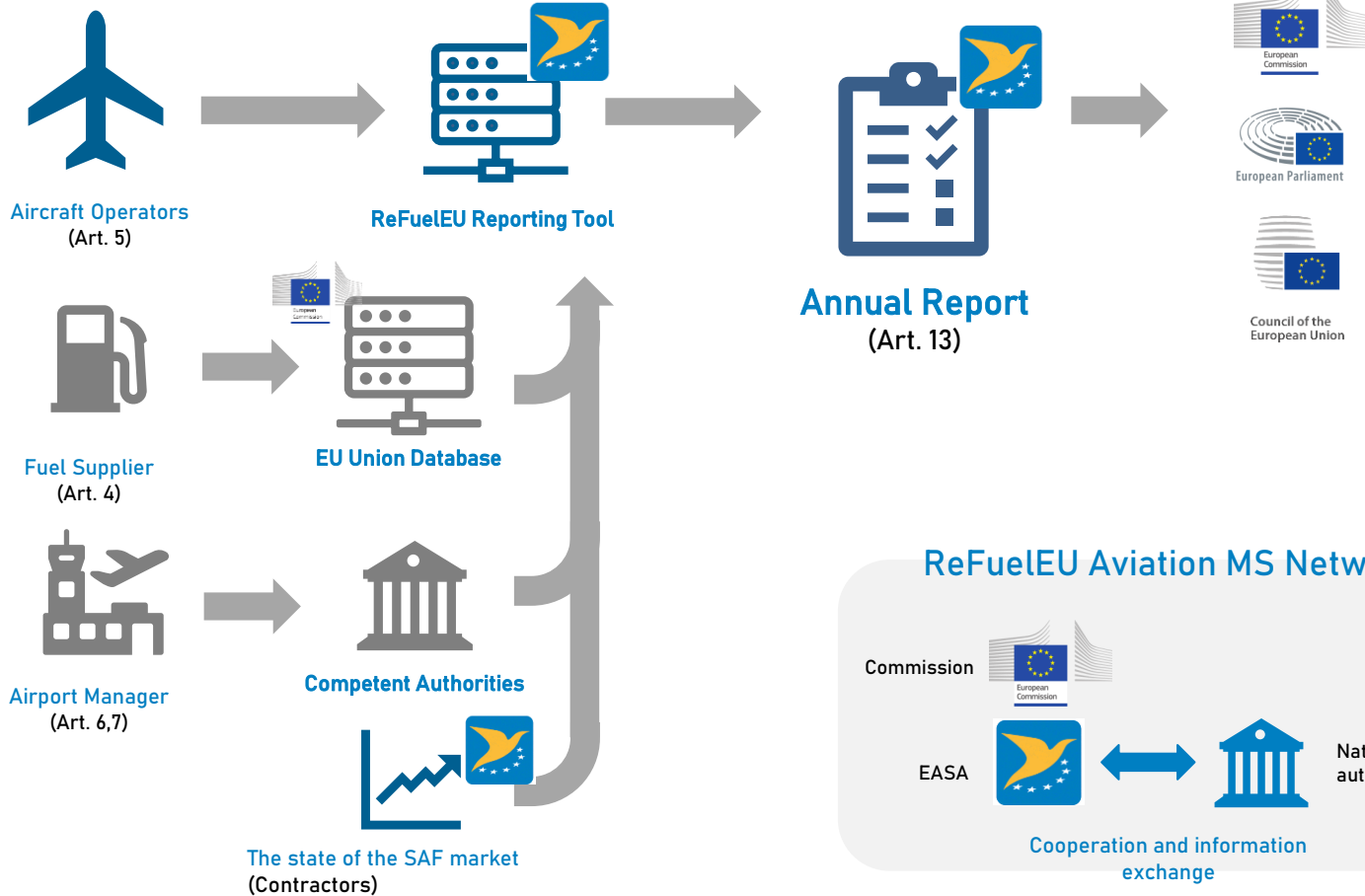
Regulatory Timeline

Timeline REGULATION (EU) 2023/2405



ReFuelEU: Annual Report

ReFuelEU Project



ReFuelEU Aviation – Cooperation with National Authorities

Art. 11 (3) Competent Authority

The Commission, the Agency and the competent authorities of the Member States shall cooperate and exchange all relevant information to ensure effective implementation and compliance with this Regulation.




ReFuelEU Aviation Member State Network

Established in November 2023

Scope

- Present and discuss **progress on the preparatory activities**
- **Share best practices and report on challenges in the technical implementation** for reporting obligations cycles of aircraft operators, aviation fuel suppliers and Union airport managing bodies
- **Share best practices and report on challenges in the monitoring of aviation fuel use and supply**, SAF use and supply, and the verification requirements for the data submitted.
- **Discuss** the necessary information to be collected and **provide feedback** relevant for the purpose of the yearly monitoring report prepared by EASA.

ReFuelEU Aviation 

ReFuelEU Aviation Member States Network

Terms of Reference (ToR)

Issue 1.1

approved on 16 November 2023

Version	Date	Update (potential timeline)
1.0	06 Nov 2023	Draft shared with Member States for review
1.1	15 Nov 2023	Revised version including updates proposed by MS (draft exchanges) ToR to be approved by the Focal Points on 16 Nov 2023 during Plenary meeting
1.1	16 Nov 2023	Approved ToR by the Focal Points during the 1 st ReFuelEU Aviation MS Network

Main Goals for 2024

- **Progress on the preparatory activities**
 - Next Meeting of the ReFuelEU Aviation MS Network [11/04/2025]
- Work together with the National Authorities to **put into place the reporting scheme** for aircraft operators
 - 1st Reporting Obligations [31/03/2025]
- Elaboration of the **first SAF pricing references** in the context of the Regulation



EU Aviation Fuel Standards Body

Working for sustainable aviation.
Your safety is our mission.



Overall aim of the project



Long-term objective

- ❑ To assess and contribute to the creation of an EU Aviation Fuel Standards Body (EAFSB)



Short-term goals

- ❑ Feasibility study of setting up an EU Aviation Fuel Standards Body
- ❑ Assess and develop the options of reducing aviation's environmental and climate impacts by lowering the limits for aromatics, naphthalene and sulphur.

Budget
1MEUR

Duration
2 years

EU Fuel Standard Body : Setting the scene



Climate impact mitigation:

Fuel standard requirements (especially for aromatics and sulphur) have a strong impact on non-CO₂ emissions and thus the environment / climate



European strategic independence:

An European aviation fuel standard could foster European environmental leadership as well as strengthen European independence in fuel quality related questions.



The creation of such a body would come with costs and needs the support of a wide set of stakeholders to be successful.

EAFSB Pilot project- work streams

Overreaching activities – global harmonisation and stakeholder involvement

WP1

Current system
analyses - status quo

WP
2

Short term use case:
preparatory work to develop
fuel standard to lower non-
CO2 climate impacts

WP
3

Long term use case:
new fuel standard to
maximize SAF benefits

WP4

Assess feasibility for
an EU Aviation Fuel
Standards body

EU SAF Clearing House

Working for sustainable aviation.
Your safety is our mission.

EU SAF Clearing House



This project is funded by the
European Union

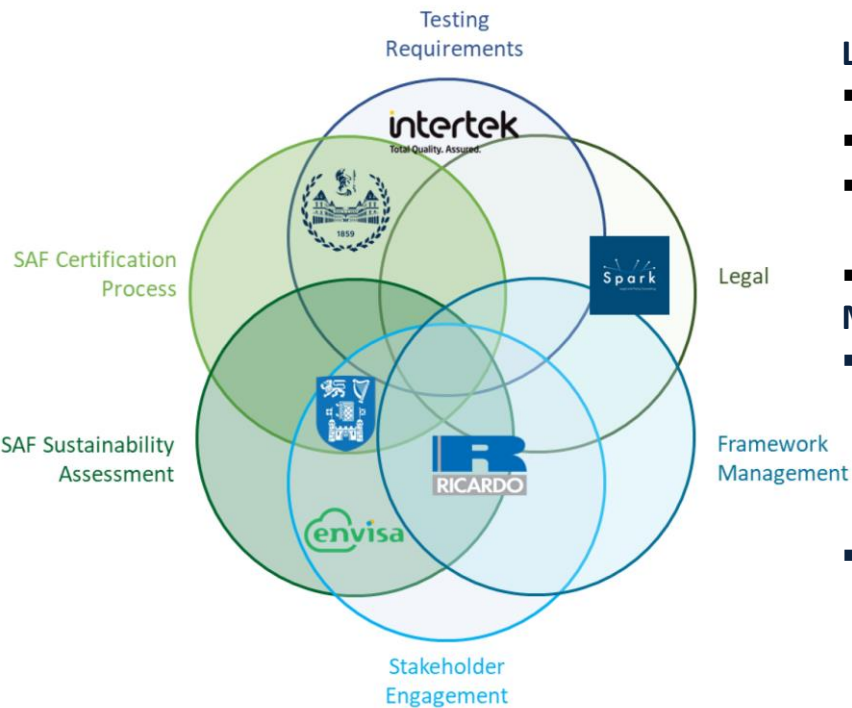
Launch Q4/2023 with Implementing Partner

- €2M, Q4 2022 – Q4 2025
- Lead contractor: **Ricardo Nederland B.V.**
- EU Clearing House Director:
Dr. Stephen Dooley, Trinity College Dublin.
- Project Manager: **Andreas Busa**, EASA.

Mission

- The EU SAF Clearing House aims to remove as many barriers as possible to support the EU & International deployment of SAFs, and the approval of new SAF pathways using the ASTM D4054 evaluation process.
- Support SAF producers with expert knowledge and testing capabilities.

- **Important note:** Synthetic Aviation Turbine Fuel is qualified by the relevant industry, particularly OEMs, with regulatory supervision, using ASTM D4054 process as a conduit (guidelines, balloting).



EU SAF Clearing House



This project is funded by the
European Union

Operational Concept

- The EU SAF Clearing House is a one-stop-shop operated as an “Open House”.
 - Coordinate existing actors in the EU (e.g. OEMs, fuels producers).
 - Complement services.
 - Continuous improvement.
 - Efficiency & Impact are priority.

Pillar 1: ASTM D4054 Service (priority)

- Everything a fuel producer requires for efficient D4054 evaluation will be offered, including Prescreening, partial funding.
- Ensure integrity of data, offer staged expert recommendations to fuel producer.
- Improve & streamline D4054 process, with OEMs, US & UK CHs, EASA, FAA +.

Pillar 2: Sustainability Assessment

- CO_{2(eq)} and resource intensity analysis, with coaching on alignment to EU & international regulatory environment & latest knowledge.

Pillar 3: Champion SAF

- Disseminate & explain challenges in SAF deployment.
- Advise on R&D questions, investment, policy coherence.



EU SAF Clearing House



This project is funded by the
European Union

Mission

- The EU SAF Clearing House aims to remove as many barriers as possible to support the EU & International deployment of SAFs, and the approval of new SAF pathways using the ASTM evaluation process.
- Support SAF producers with expert knowledge and testing capabilities.

EU SAF Clearing House

Next steps:

- Finalisation of operating model
- Extending the network of testing facilities
- First support for fuel producers, e.g. prescreening for potential fuel candidates



Aviation non-CO₂ emissions

Working for sustainable aviation.
Your safety is our mission.

Climate Science

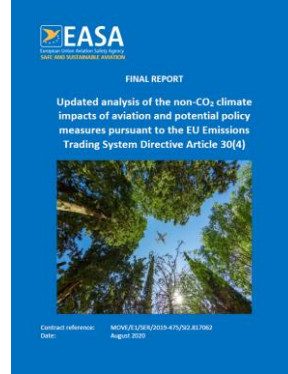
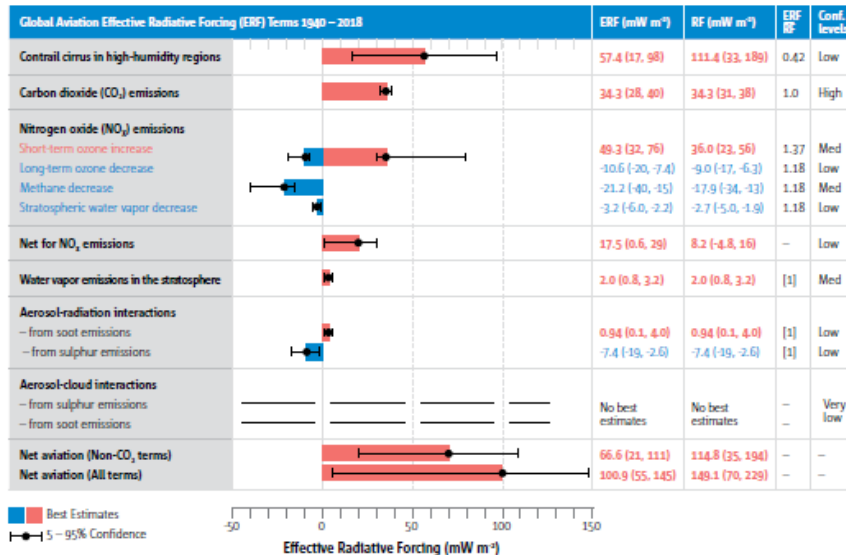


Figure 2.5 Best-estimates for climate forcing terms from global aviation from 1940 to 2018 [33]



- [EASA report](#) on non-CO₂ emissions in 2020.
- Largest aviation non-CO₂ impacts that can be calculated with ‘best estimates’ are from **NO_x and contrail-cirrus clouds**.
- Could account for more than half of aviation’s contribution towards climate change, **BUT...**
- Significant uncertainties remain with non-CO₂ contributing about 8 times more than CO₂ to the overall uncertainty on aviation’s climate impact.

EU Emission Trading System (ETS) Non-CO₂ MRV

- Revised EU ETS Directive entered into force in June 2023
 - **31 August 2024:** EC to adopt an implementing act including non-CO₂ effects in the ETS Monitoring, Reporting and Verification (MRV) framework
 - **From 1 Jan 2025:** MRV of non-CO₂ effects by airlines as from 2025
 - **From 2026:** EC to publish the results from the MRV framework once a year
 - **31 December 2027:** Based on the results of the MRV of non-CO₂ aviation effects, the EC will submit a report and, if appropriate, a legislative proposal to mitigate non-CO₂ effects.
- **ETS Study Group**, of which EASA is a Member, was established to support DG CLIMA on the studies to implement the revised EU ETS aviation.
 - Close coordination with EASA ReFuelEU annual SAF market analysis as **SAF pricing** will inform allocation of SAF Allowances under ETS.

Work within Europe on non-CO₂ emissions

- The climate impacts of aviation non-CO₂ emissions are **high on the political agenda**.
- **Fragmented landscape with multiple research projects** launched across various initiatives (e.g. EC, Horizon Europe, CAJU, SESAR, ICAO, Non-European States, Industry).
- Need to ensure a **common understanding** on scientific developments and best practices for assessing the climate impacts of aviation non-CO₂ emissions.

EASA Aviation non-CO₂ Expert Network (ACEN)

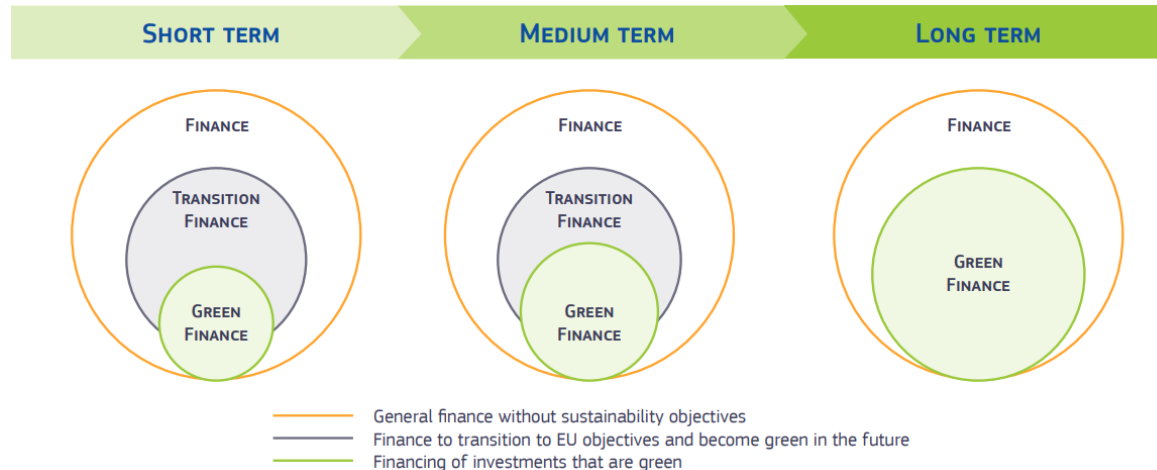
- Horizon Europe 'Cluster 5 – Climate, Energy and Mobility' project to:
 - **strengthen European coordination** through a network of experts to enhance assessments of non-CO₂ emission impacts and policy options;
 - **consolidate and evaluate research project results** and identify open issues / gaps;
 - coordinate work with **international partners** (e.g. US, ICAO CAEP)
 - develop content to **enhance the understanding of policymakers** and the public on key topics linked to the impact of aircraft non-CO₂ emissions.
- Potential support to discussions on ETS non-CO₂ MRV framework.
- €1M ACEN project (Q1 2024 – Q3 2027).

Taxonomy

Working for sustainable aviation.
Your safety is our mission.

EU Sustainable Finance Taxonomy

- EU Taxonomy is a tool to **support investors, companies, issuers and project promoters transition to a low-carbon, resilient and resource-efficient economy**
- Taxonomy sets **performance thresholds, referred to as “Technical Screening Criteria (TSC)”**, for **economic activities to be considered sustainable**, aimed to create a commonly agreed criteria around green activities



EASA past contributions on Taxonomy

- Over the last two years, EASA has contributed by providing **ad-hoc technical support to the Commission** as per the Basic Regulation Art 87 (provision of certification data, estimates for aircraft CO₂ performance, airport and runway criteria, etc.).
- Agency's role, in terms of technical support, reflected in the recital of the Taxonomy Delegated Act.



EASA future study on implementation issues

- DG MOVE funding EASA to conduct a study on the implementation aspects of the aviation TSC for Taxonomy.
- Budget: 150kEUR
- Duration: 2024
- Scope of the study includes:
 - Various definitions included in the TSC.
 - Clarify/specify the compliance conditions.
 - Establish the methodology for the global fleet replacement ratio and aircraft withdrawal conditions.
 - Set conditions for self-declaration by manufacturers on CO₂ emissions compliance with Best-in-Class margins.
 - Consider the possibility of creating a list of aircraft complying with the “best-in- class” criteria.
 - Clarify the link between reporting of SAF under the ReFuelEU and taxonomy.
 - Consider how the criteria will be impacted by complicated forms of financing and leasing.

Taxonomy Delegated Act, incl. Aviation TSC

- Adoption by the Commission in June 2023. **Entry into force 1 January 2024.**
- Aircraft performance criteria included in the Taxonomy:
 - Low carbon emitting technology:
 - the aircraft **with zero direct (tailpipe) CO₂ emissions**, or
 - on the basis of being a transition activity:
 - Conventional aircraft (not business aircraft), with **'leading edge' environmental performance based on EASA data certified by CT** (CO₂, Noise and NOx).

Emissions thresholds – percentage margins below ICAO New Type Aeroplane CO ₂ Standard			
Aircraft MTOM	Until 2027	2028-2032	2032 -
5.7t – 60t	11%	Same as until 2027 + a/c certified to operate with 100% SAF	To be defined in a future review of the TSC
>60t – 150t	2%		
>150t	1.5%		

- Criteria is also being developed for the **inclusion of Sustainable Aviation Fuels, airports, ground handling and special aircraft** (e.g. firefighting, medical) into the Taxonomy