



| ICAO

ENVIRONMENT

Offsetting Requirements





- **Objective:**
 - Provide an overarching presentation of CORSIA Offsetting Requirements

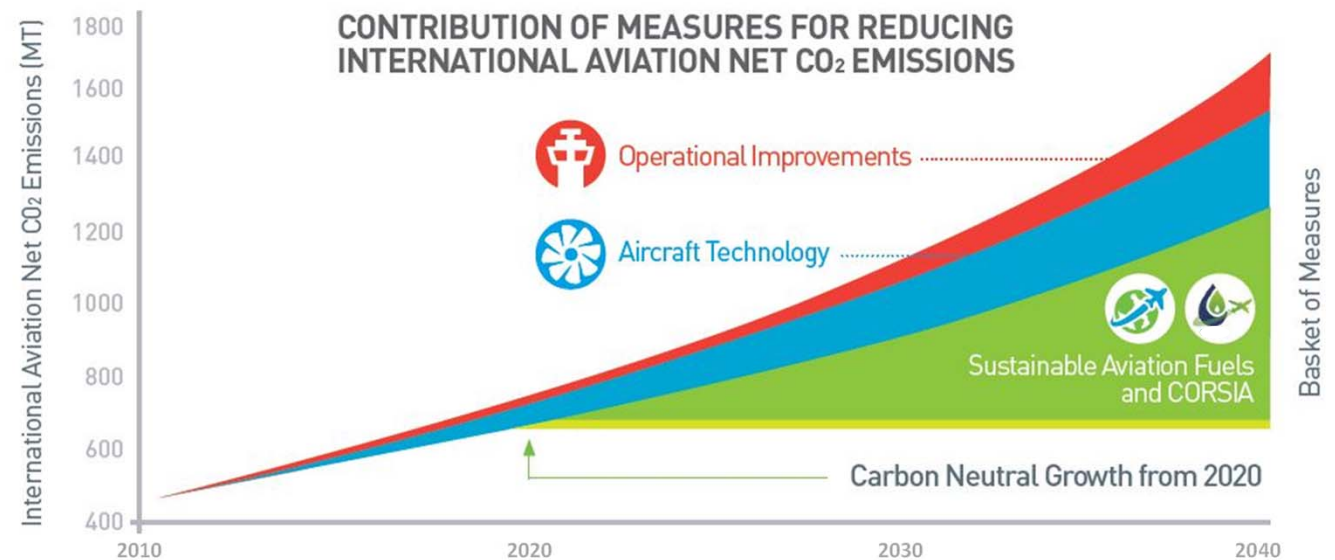


Adopted through Assembly Resolution 39-3

The **first global MBM** scheme for any industry sector

To achieve ICAO's global aspirational goal of carbon neutral growth from 2020 (CNG 2020), CORSIA is **one complementary element in the basket of measures** to:

- **aircraft technology**
- **operational improvements**
- **sustainable aviation fuels**





FAQ 2.13: What is offsetting and how does it work?

- **Offsetting through the purchase and cancellation of emissions units:**
 - Different sources of emissions reductions (mechanisms, programmes, projects)
 - Buying and selling of eligible emissions units through the carbon market
 - Price of the emissions units influenced by law of supply and demand
- **“Cancelling” means the permanent removal and single use of an emissions unit.**
 - Done after an aeroplane operator has purchased emissions units from the carbon market



- Key design features of CORSIA:
 - Phased implementation (paragraph 9)
 - Emissions coverage: route-based approach (paragraph 10)
 - **Offsetting requirements (paragraph 11)**
 - New entrants (paragraph 12)
 - Technical exemptions (paragraph 13)
 - Review mechanism (paragraphs 9g and 18)
- CORSIA implementation features:
 - Monitoring, **Reporting** and **Verification** (paragraphs 15, 20a and 20b)



Second phase participation criteria:

- 90% of global RTK
- 0.5% of RTK

Exemptions:

- LDCs, LLDCs, SIDS

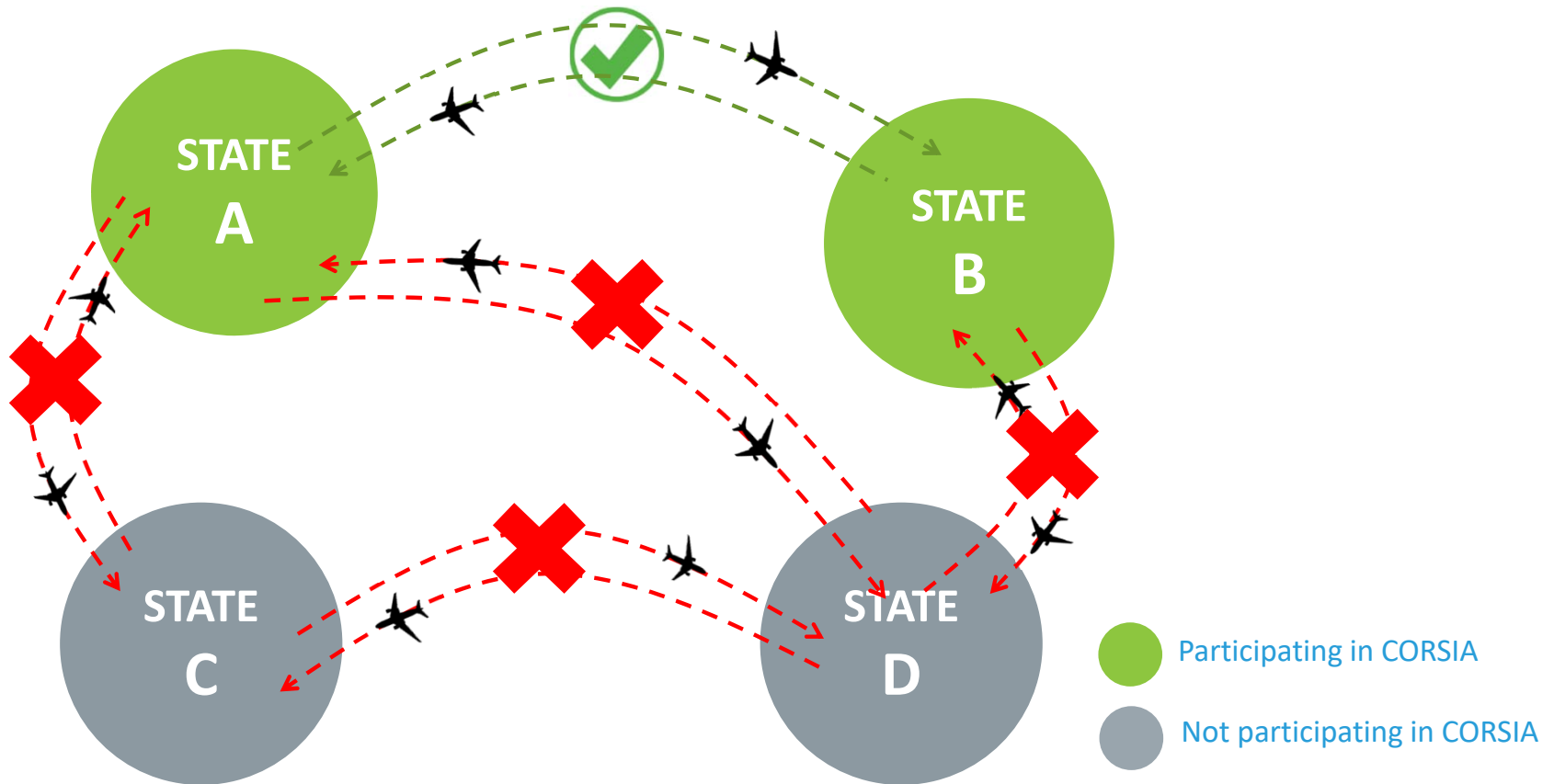
All Member States are encouraged to participate in the pilot and first phase of the CORSIA

Reference: Assembly Resolution A39-3, Paragraph 9



FAQ 2.3: What is the difference between the pilot and the first phase?

- The requirements for the two phases are identical except for how the aircraft operator's offsetting requirements are determined by the State. Specifically:
 - For the pilot phase, States have two options to determine the basis of an aircraft operator's offsetting requirements:
 - Option 1: Use the aircraft operator's emissions covered by CORSIA in a given year (i.e. 2021, 2022 and 2023)
 - Option 2: Use the aircraft operator's emissions for the year 2019 (**Previously 2020**).
 - For the first phase, the calculation to determine an aircraft operator's offsetting requirements is based on the emissions in a given year (i.e. 2024, 2025 and 2026).



Reference: Assembly Resolution A39-3, Paragraph 10



FAQ 2.11: What would happen if an AO of a non-participating State flies on covered routes?

- Because of the CORSIA's route-based approach, all routes between participating States would be subject to the coverage of emissions offsetting requirements under the CORSIA.
 - **An operator of a non-participating State would be subject to offsetting requirements if it had a flight between two participating States.**



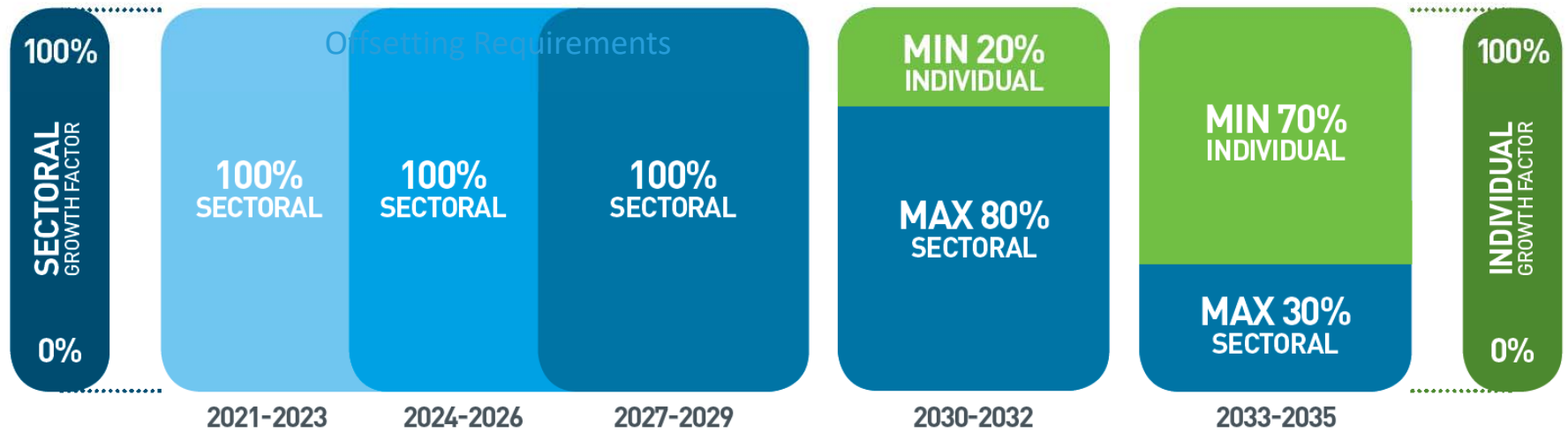
FAQ 2.12: What if a State without an AO undertaking international flights decides to participate?

- States without an operator flying international flights are encouraged to participate in all phases of the CORSIA.
 - If such a State decides to participate, flights to and from that State to other participating States are additionally included for the CORSIA's offsetting requirements, due to the route-based approach
 - **The total international emissions covered by CORSIA offsetting would ultimately increase**



Operator's annual emissions X Growth Factor = CO₂ offset requirements

The Growth Factor changes every year taking into account both the sectoral and the individual operator's emissions growth. The Growth Factor is the percent increase in the amount of emissions from the baseline to a given future year, and is calculated by ICAO.



Reference: Assembly Resolution A39-3, Paragraph 11



Provision 3.2.2: The State shall calculate, for each of the aeroplane operators attributed to it, the amount of CO2 emissions required to be offset in a given year from 1 January 2024 to 31 December 2035 prior to consideration of the CORSIA eligible fuels, every year as follows:

$$OR_y = \%S_y * (OE_y * SGF_y) + \%O_y * (OE_y * OGF_y)$$

where:

OR_y = Aeroplane operator's offsetting requirements in the given year y;

OE_y = Aeroplane operator's CO2 emissions covered by 3.1 in the given year y;

%S_y = Per cent Sectoral in the given year y;

%O_y = Per cent Individual in the given year y where %O_y = (100% - %S_y);

SGF_y = Sector's Growth Factor; and

OGF_y = Aeroplane operator's Growth Factor.



FAQ 2.16: What are CORSIA's baseline emissions?

- The sectoral baseline is defined as the average of total CO₂ emissions for the years 2019 and 2020 on the routes covered by CORSIA offsetting in a given year from 2021 onwards.
 - Paragraph 11(g) of the Assembly Resolution A39-3 notes that the **sectoral baseline will be re-calculated** when the routes included in the CORSIA change.
 - For example, when new States volunteer to participate or States decide to withdraw their participation.
 - Calculation of the baseline will be done by ICAO



FAQ 2.19: Can an aeroplane operator's CO₂ offsetting requirements be negative?

- If an aeroplane operator's total final offsetting requirements during a compliance period are negative (i.e., the verified emissions reductions claimed by an operator from the use of CORSIA eligible fuels are more than its offsetting requirements), the operator has no offsetting requirements for the compliance period.
 - **Negative offsetting requirements will not be carried forward to a subsequent 3-year compliance period**
 - If an operator's offsetting requirements in a given year inside of a compliance period are negative, the operator will reduce its total final offsetting requirement for that three-year compliance period.



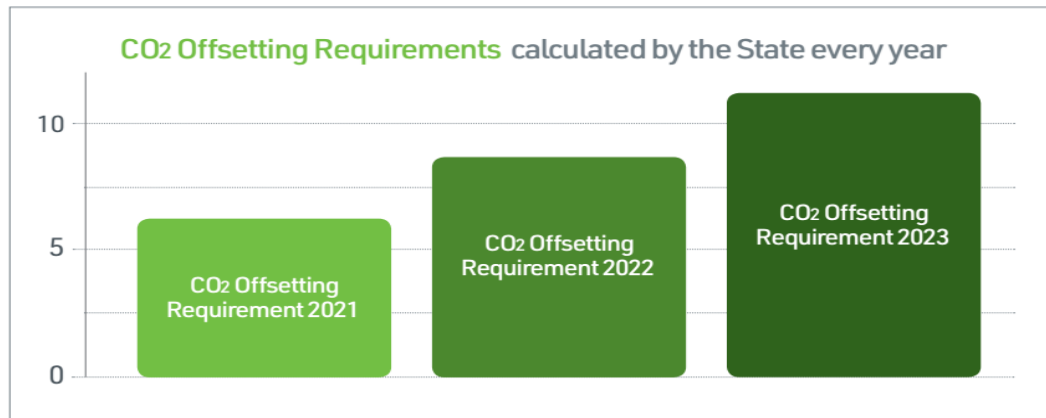
CORSIA OFFSETTING REQUIREMENT STEPS

- 1 The State calculates the offsetting requirements attributed to an aeroplane operator.**

$$\text{Operator's annual emissions} \times \text{Growth Factor} = \text{CO}_2 \text{ offsetting requirements}$$

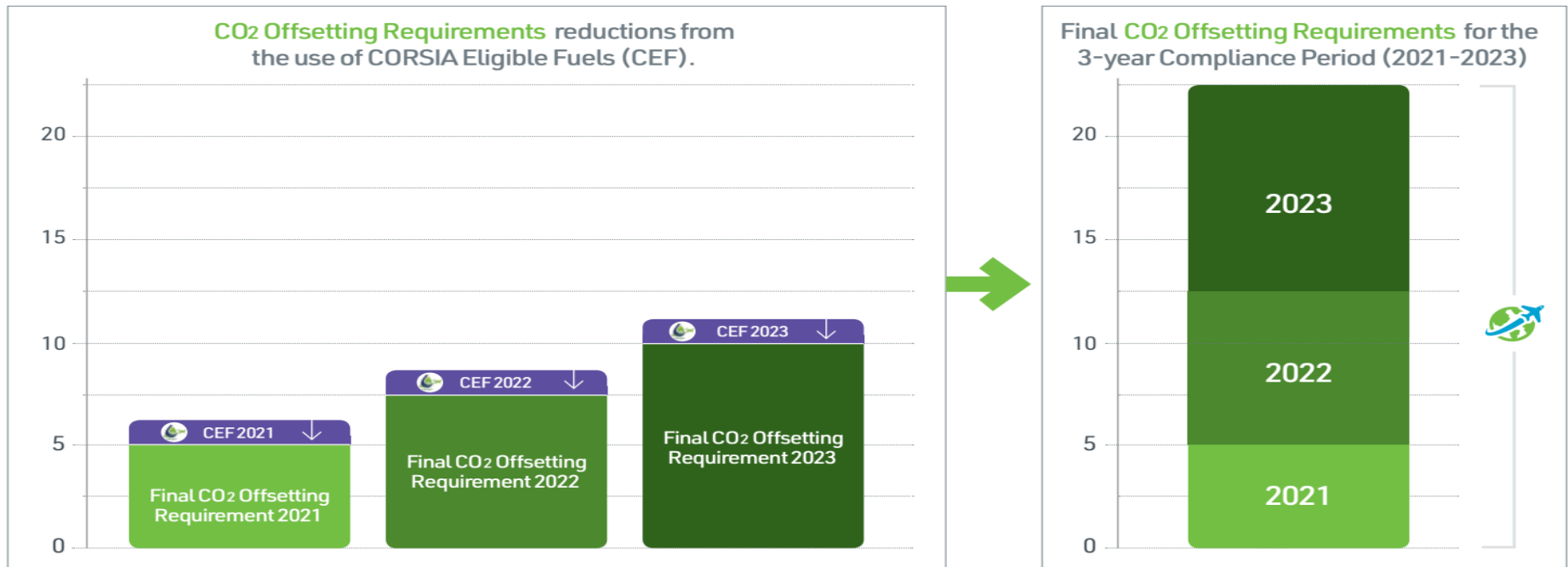
In a given year from 2021, the **Growth Factor** is the percent increase in the amount of emissions from the baseline, and is calculated by ICAO.

The **Growth Factor** changes every year taking into account both the sector's and the individual operator's emissions growth.





- 2** The operator reports the use of CORSIA Eligible Fuels (CEF) for a 3-year compliance period.
- 3** The State accounts for the benefits from the use of CEF and informs the operator of its final CO₂ offsetting requirements for a 3-year compliance period.





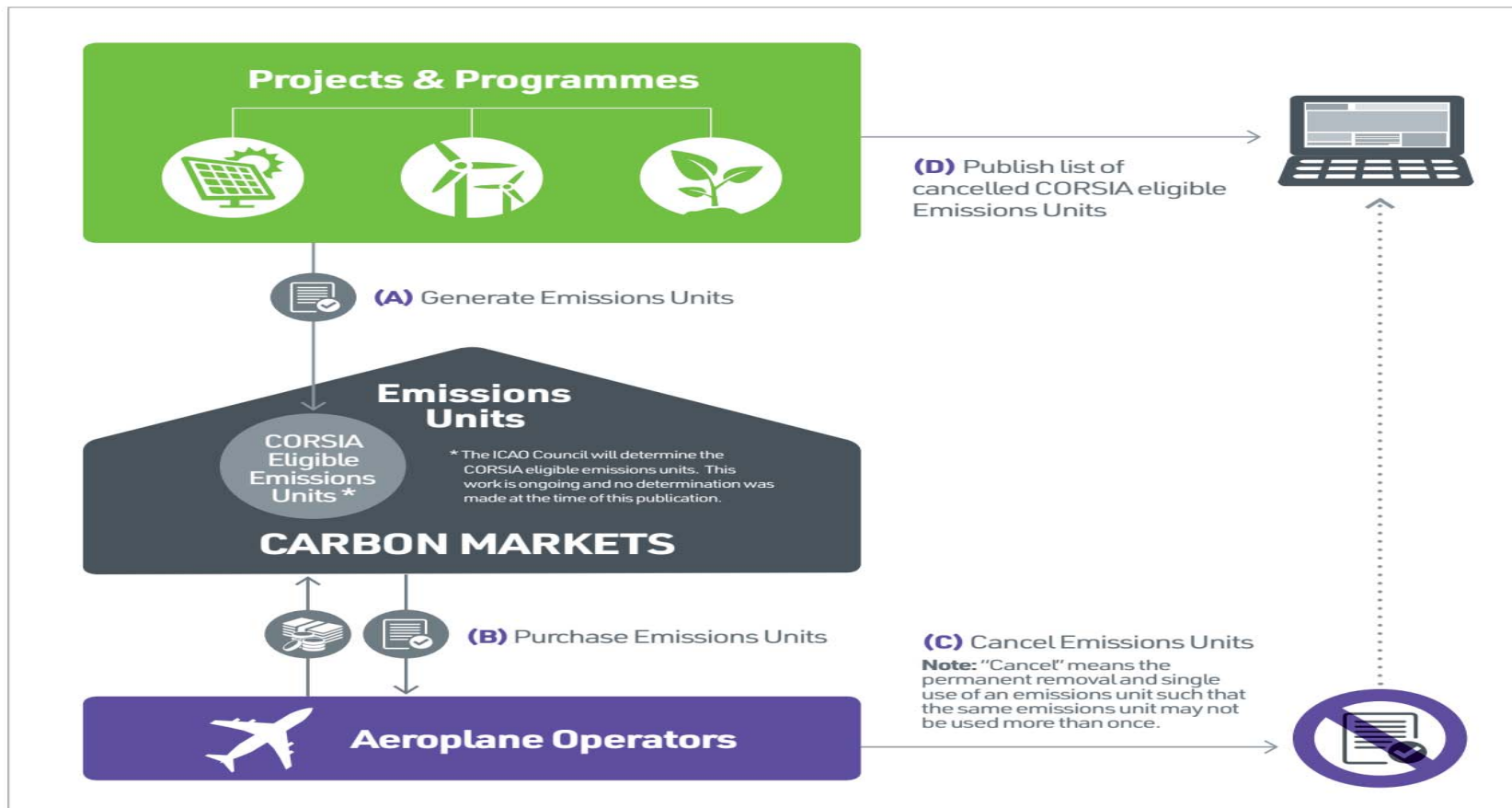
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The operator purchases and cancels eligible emissions units equivalent to its final CO₂ offsetting requirements for the compliance period.

- **(A) Generate:** Emissions reduction projects generate emissions units.
- **(B) Purchase:** Emissions units are purchased in carbon markets on a per-tonne basis, where **1 Emissions Unit = 1 Tonne of CO₂**.
- **(C) Cancel:** Operators cancel CORSIA eligible emissions units. Cancellation takes place within a registry designated by a CORSIA Eligible Emissions Unit Program.
- **(D) Publish:** Operators request each CORSIA Eligible Emissions Unit Program Registry to make visible the cancellation information on the registry's public website.

ICAO document "[CORSIA Emissions Unit Eligibility Criteria](#)"

ICAO document "[CORSIA Eligible Emissions Units](#)"



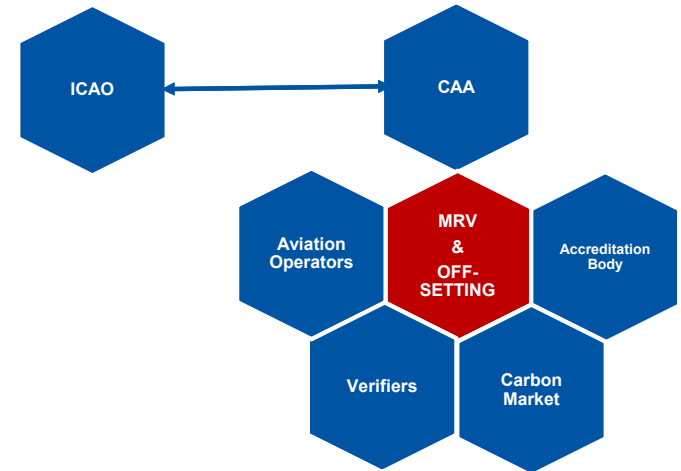


- 5** The operator provides a verified Emissions Units Cancellation Report to the State, who checks the Report and informs ICAO.



Strategic Objectives.....a bigger picture

- ✓ The CORSIA implementation is part of a broad strategy (National/Regional /global) to achieve a sustainable aviation system
- ✓ Build a robust aviation carbon offsetting scheme with All Stakeholders (in-Sector and Out of –Sector) . A complete System !



Main Stakeholders of the Aviation CO2 Offsetting Scheme



Thank you



ICAO ENVIRONMENT



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THANK YOU

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