



ICAO

ENVIRONMENT

# Session 6: CORSIA actions/timelines and the CORSIA Central Registry (CCR)

## Practical demonstration of the actions and timelines to prepare for CORSIA implementation

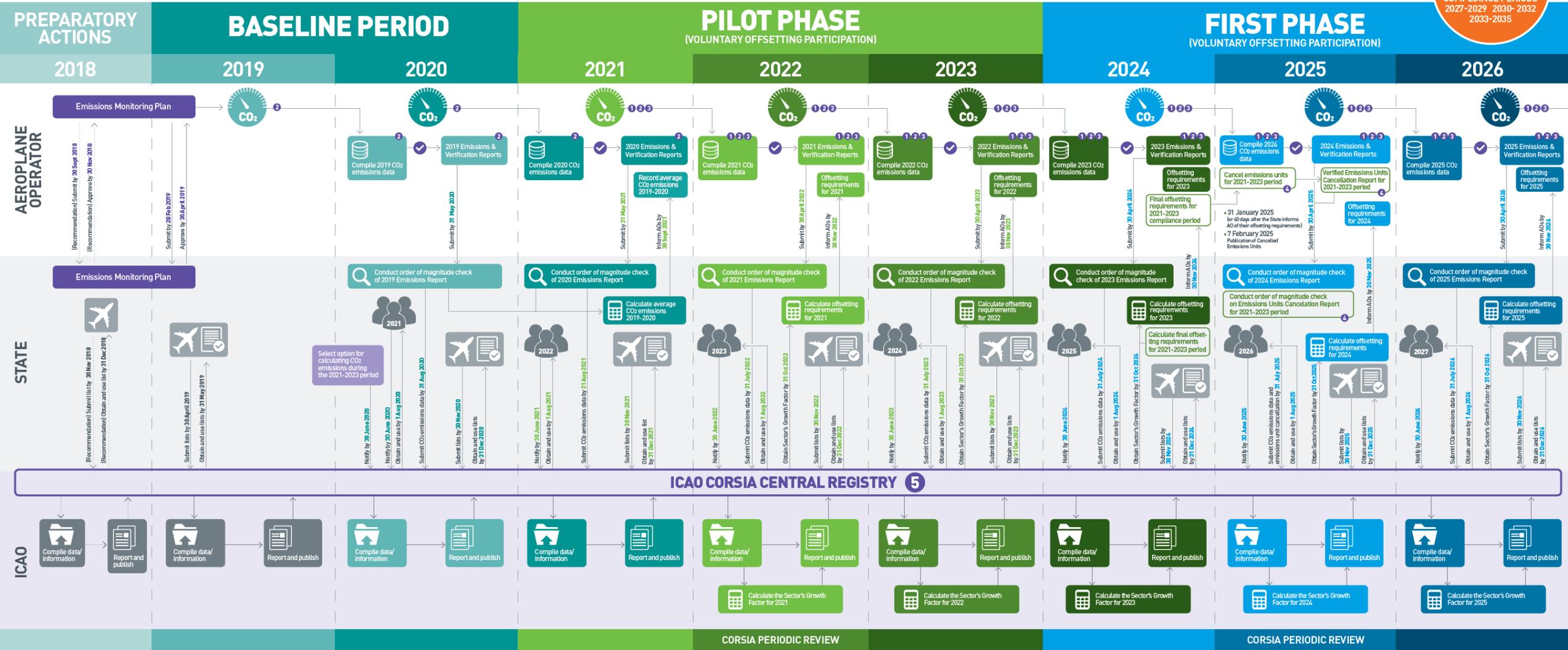
**ICAO Secretariat**





## CORSIA PHASED IMPLEMENTATION DIAGRAM

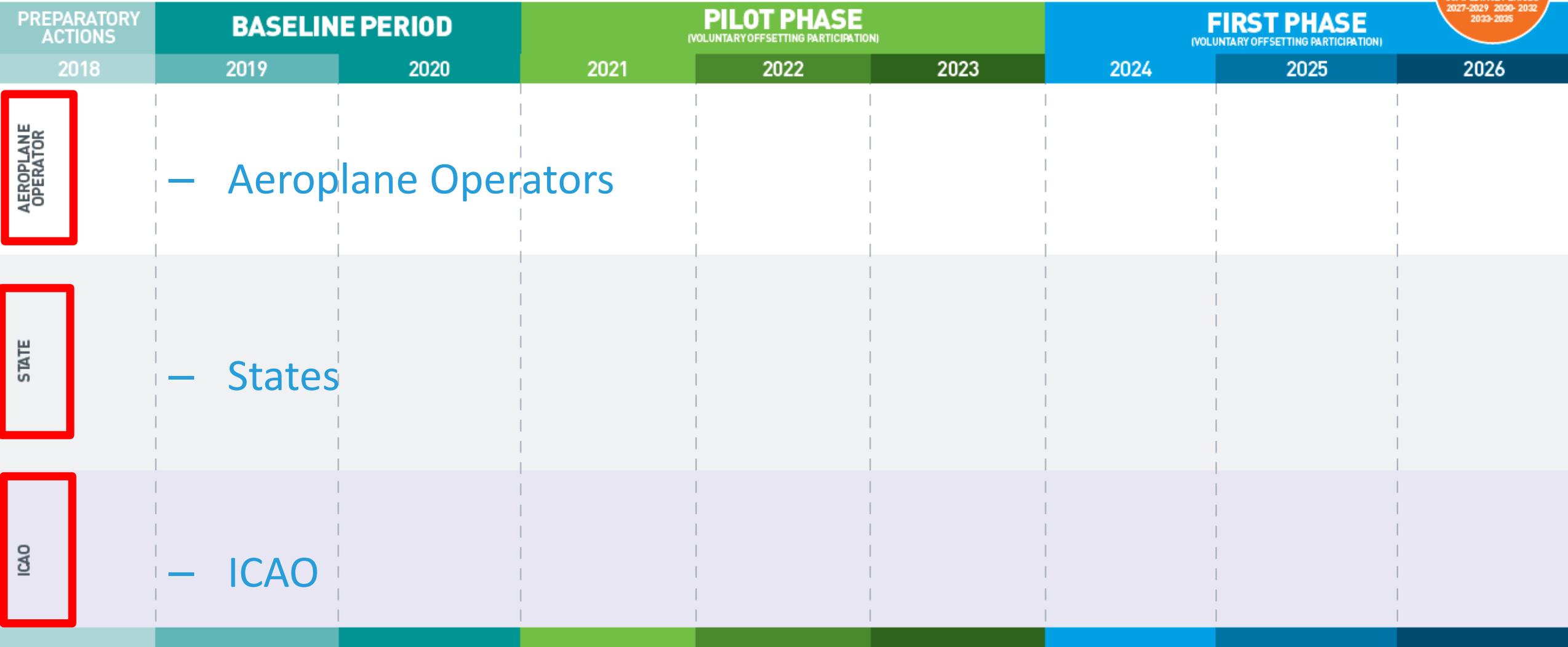
**SECOND PHASE**  
COMPLIANCE PERIODS  
2027-2029 2030-2032  
2033-2035





- 3 primary stakeholders:

**SECOND PHASE**  
COMPLIANCE PERIODS  
2027-2029 2030-2032  
2033-2035



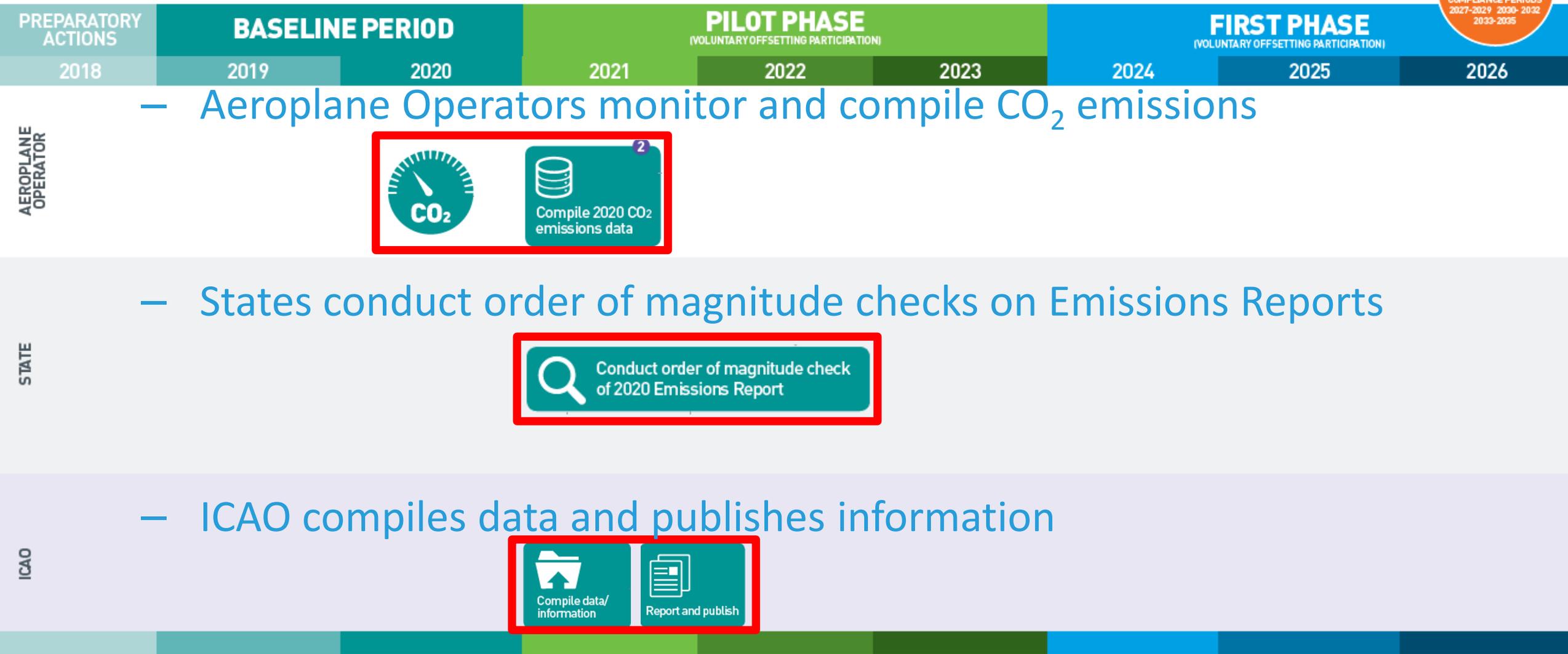


## • Phases or time periods:





- Blocks and icons indicate actions performed by that stakeholder:



– Aeroplane Operators monitor and compile CO<sub>2</sub> emissions

Compile 2020 CO<sub>2</sub> emissions data

– States conduct order of magnitude checks on Emissions Reports

Conduct order of magnitude check of 2020 Emissions Report

– ICAO compiles data and publishes information

Compile data/information

Report and publish



**SECOND PHASE**  
COMPLIANCE PERIODS  
2027-2029 2030-2032  
2033-2035

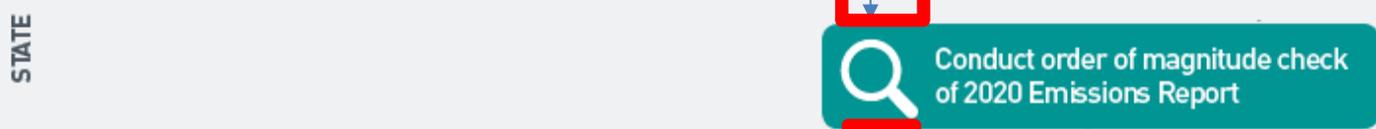
- Arrows indicate the flow of CO<sub>2</sub> information between stakeholders:



- Aeroplane Operators submits compiled CO<sub>2</sub> emissions data to the State



- States submits CO<sub>2</sub> emissions data to ICAO



- ICAO compiles data and publishes information through the CORSIA Central Registry





- Colors indicate the year of the collected emissions data:



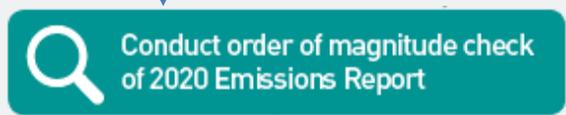
- Aeroplane Operators compile **2020** CO<sub>2</sub> emissions data in **2021**

AEROPLANE OPERATOR



- States check **2020** CO<sub>2</sub> emissions data in **2021**

STATE



- ICAO compiles and publishes **2020** data / information in **2021**

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ICAO CORSIA CENTRAL REGISTRY 5



## Diagram Legend:



AEROPLANE OPERATOR

– **Numbers** are used to highlight the corresponding CORSIA Implementation Element which is used for that step of the process.

– **Icons** are used to easily identify the step / action on the diagram.

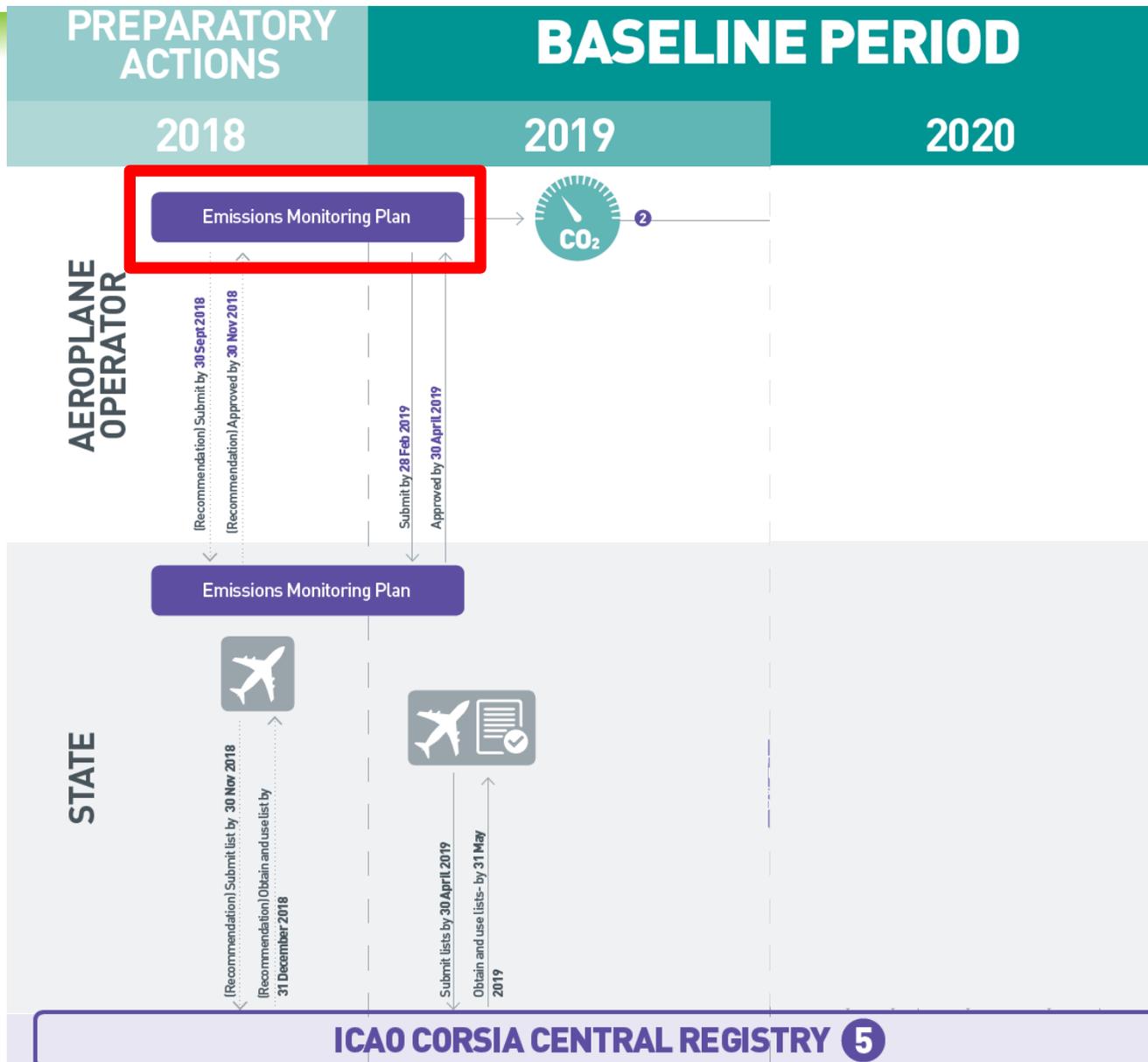
STATE

### CORSIA IMPLEMENTATION ELEMENTS

- 1 CORSIA Offsetting Participation State Pairs/Routes
- 2 ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT)
- 3 CORSIA Eligible Fuels
- 4 CORSIA Eligible Emissions Units
- 5 CORSIA Central Registry System

- Monitor CO<sub>2</sub> Emissions from international flights
- State Participation in CORSIA in year 20XX
- Aeroplane operator attributed to the State
- Verification body accredited in the State.
- Verification

ICAO

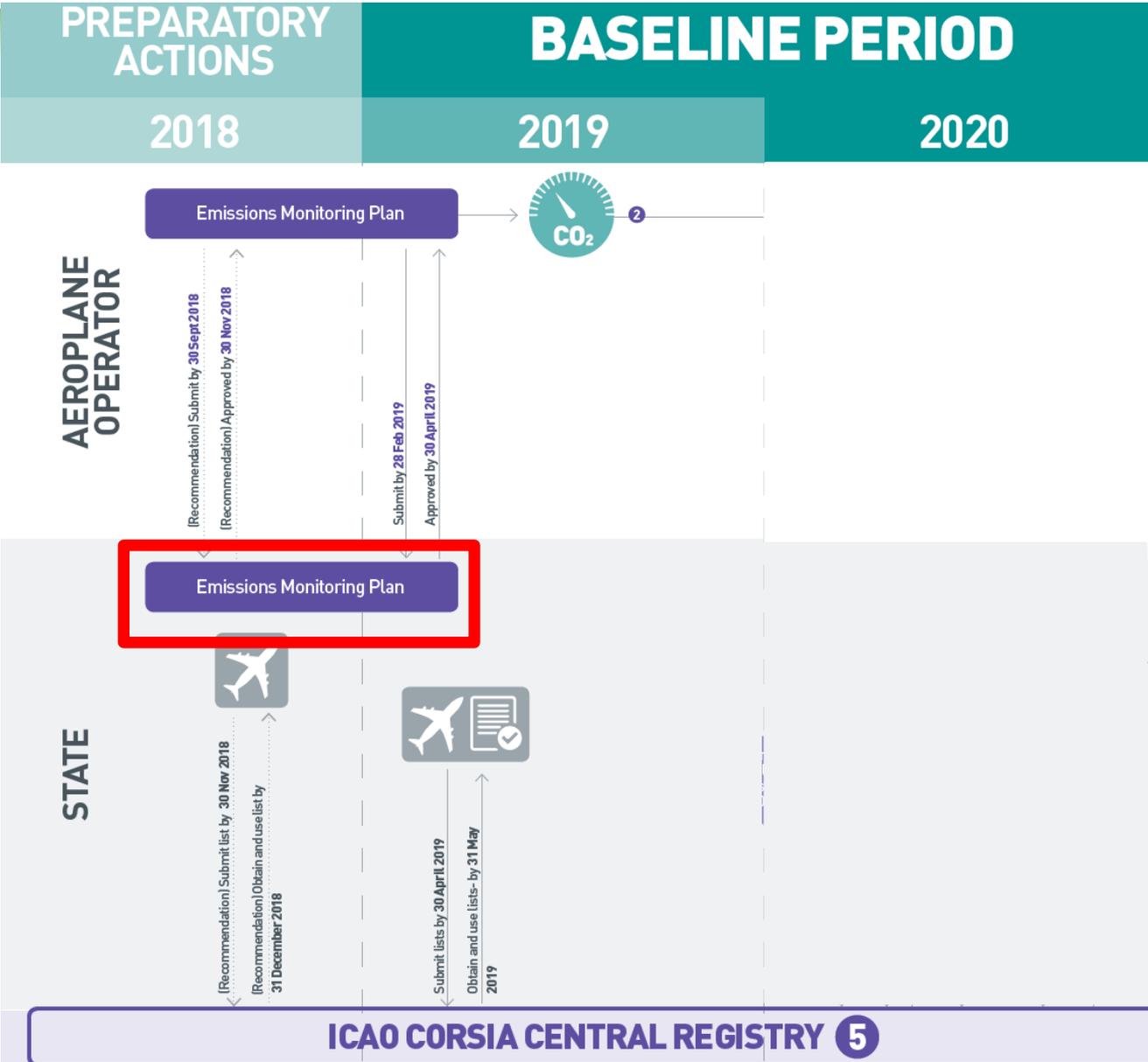


## Emissions Monitoring Plan

### Prepare and Submit:

An aeroplane operator prepares and submits an Emissions Monitoring Plan for review and consultation by the State to which it is attributed.

- Recommended timeframe: submit by **30 September 2018**.
- Mandatory timeframe: submit by **28 February 2019**.

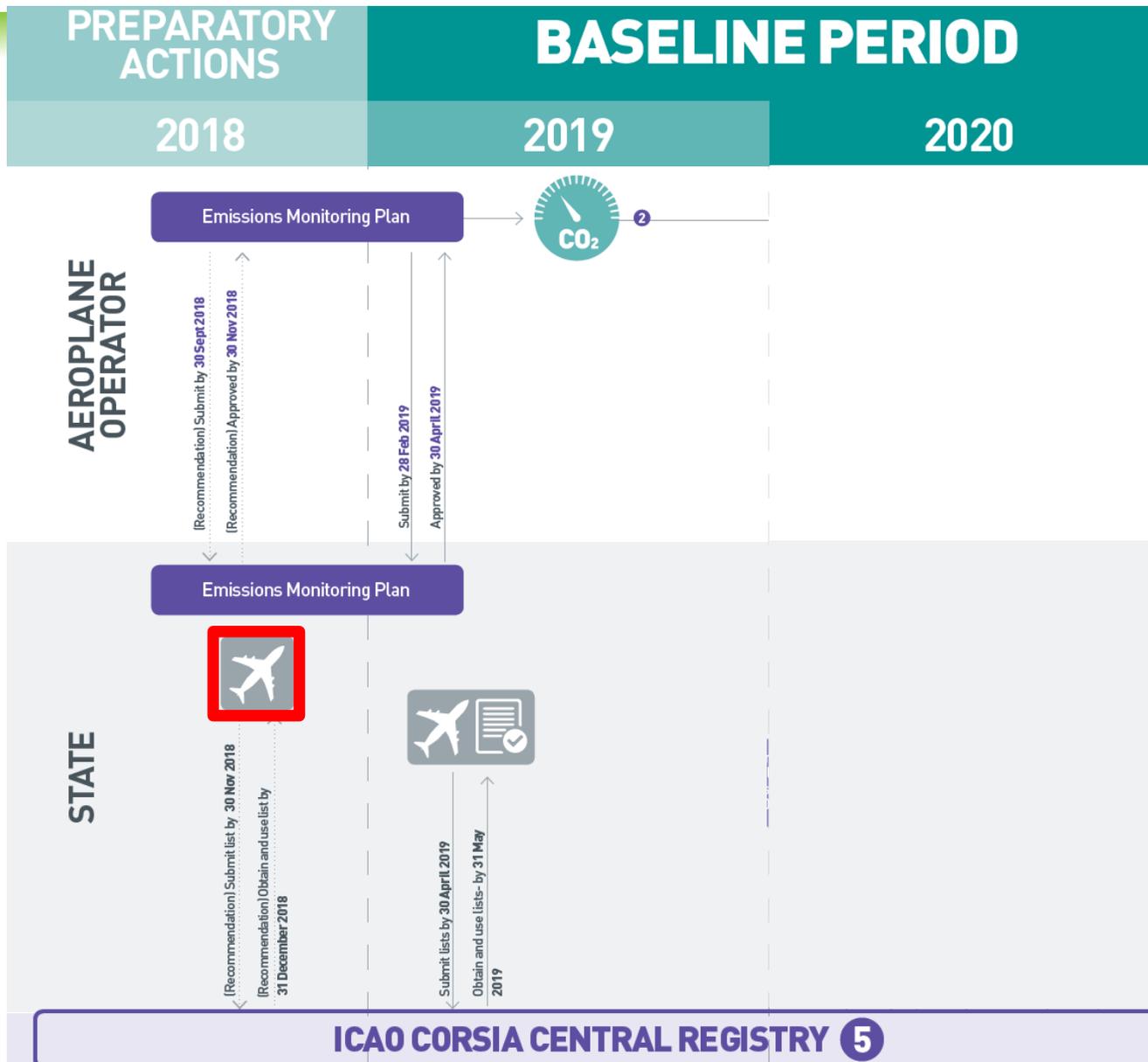


## Emissions Monitoring Plan

### Review and Approve:

The *State* reviews and approves the Emissions Monitoring Plan.

- *Recommended timeframe:* submit **by 30 November 2018.**
- *Mandatory timeframe:* submit **by 30 April 2019.**



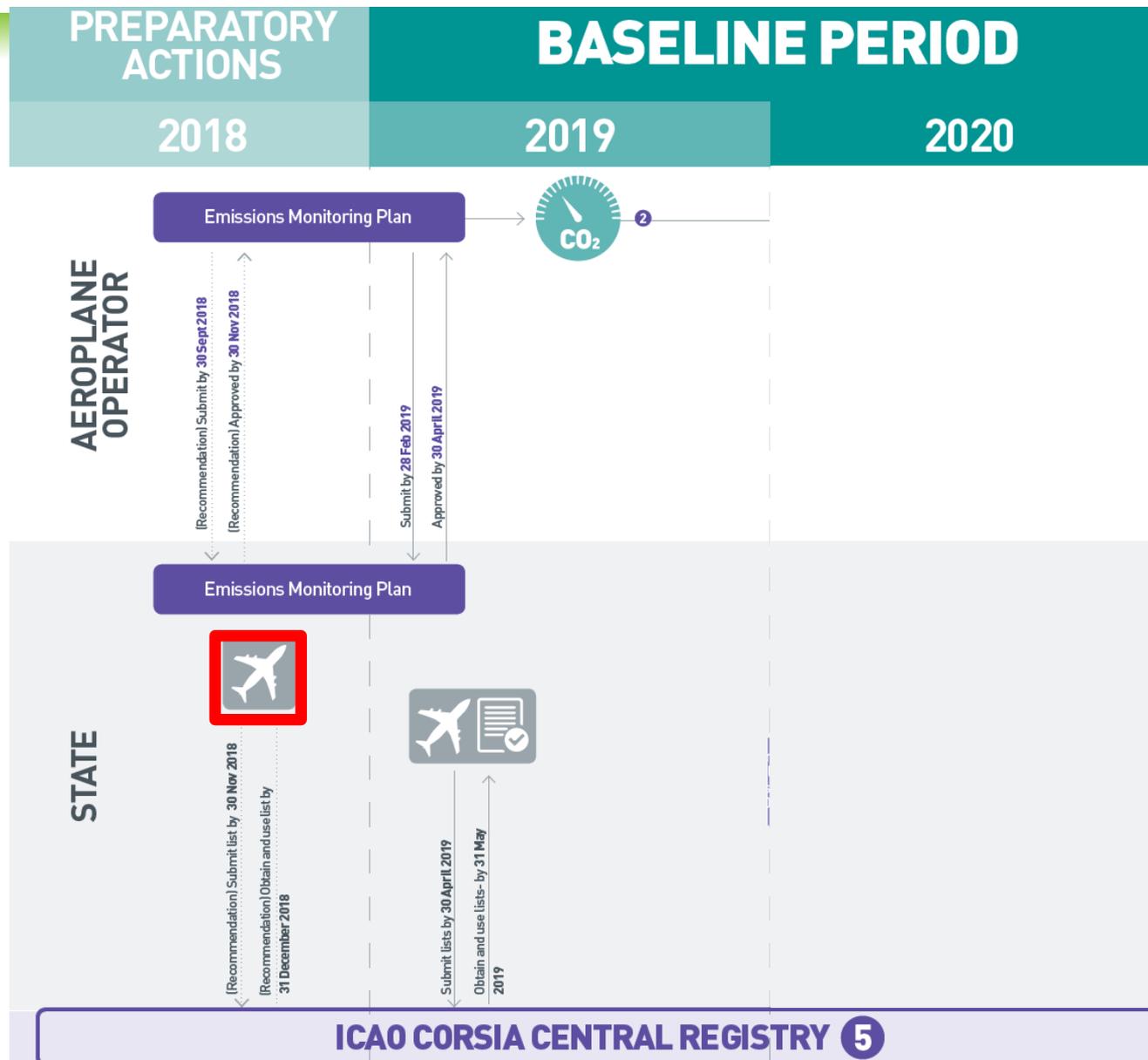
**Aeroplane Operator  
Attributed to the State**

Submit:

States submit to ICAO a **list** of all aeroplane operators (AO) attributed to the State.

–Recommended timeframe:  
submit **by 30 November 2018.**

**ICAO CORSIA Central Registry 5**



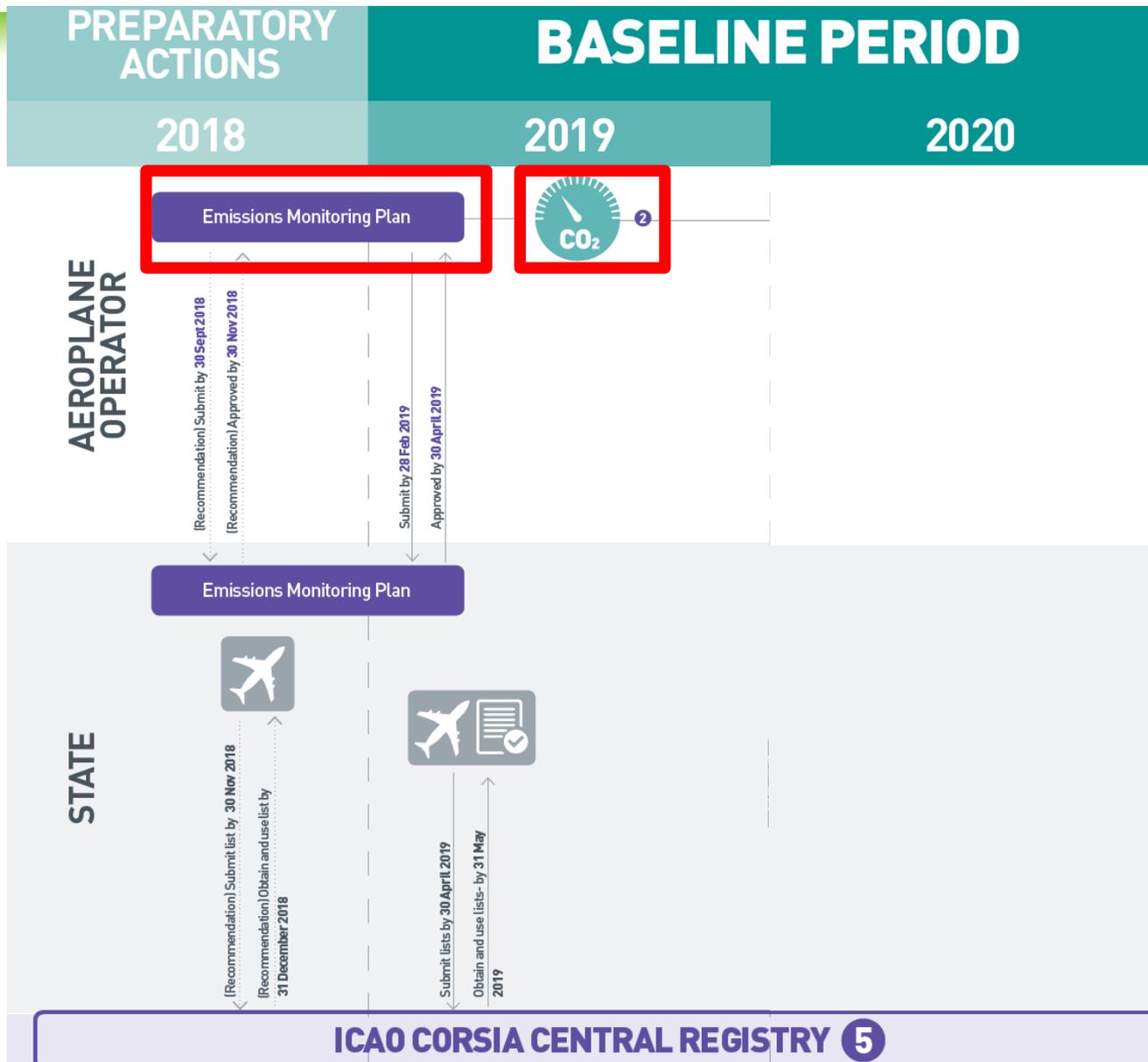
**Aeroplane Operator  
Attributed to the State**

Compile & Publish:

ICAO compiles the lists submitted by States, and publishes a combined list of all aeroplane operators attributed to their respective States.

–Recommended timeframe:  
obtain and use **by 31 December 2018.**

**ICAO CORSIA Central Registry 5**



## Emissions Monitoring Plan

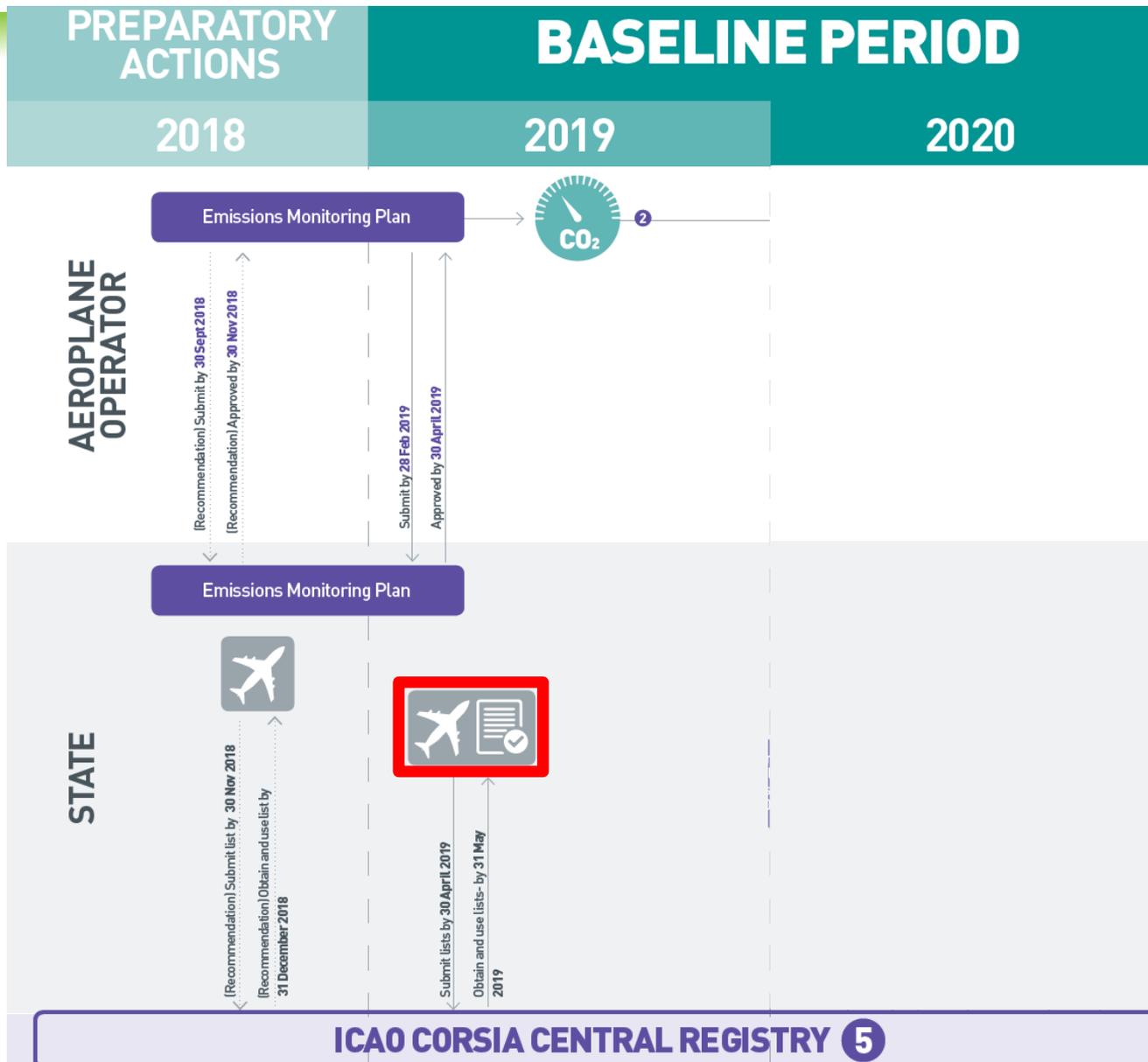
## Monitor 2019 CO<sub>2</sub> Emissions

### Monitor:

All aeroplane operators shall monitor CO<sub>2</sub> emissions from international flights.

– *Mandatory timeframe:* starting **1 January 2019** through **31 December 2019**.

Aeroplane operators can use the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) 2



**Aeroplane Operator List & Verification Body List**

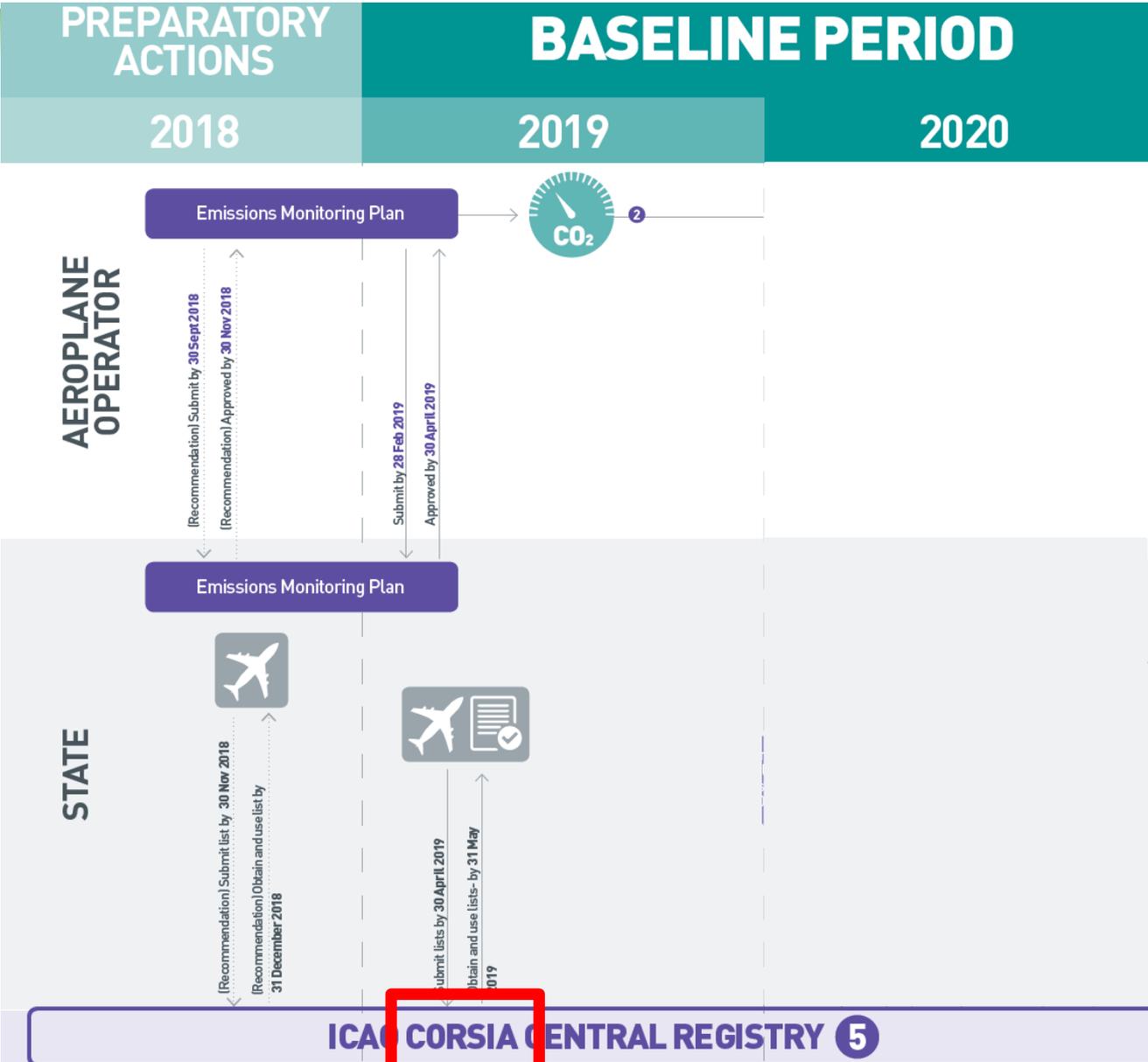
Submit:

States submit to ICAO a list of:

- Aeroplane operators (AO) attributed to the State, and
- Verification bodies accredited to the State

–Mandatory timeframe:  
submit by **30 April 2019**.

**ICAO CORSIA Central Registry 5**



**Aeroplane Operator List &**  
**Verification Body List**

Compile & Publish:

ICAO compiles the lists submitted by States, and publishes a combined list for all States.

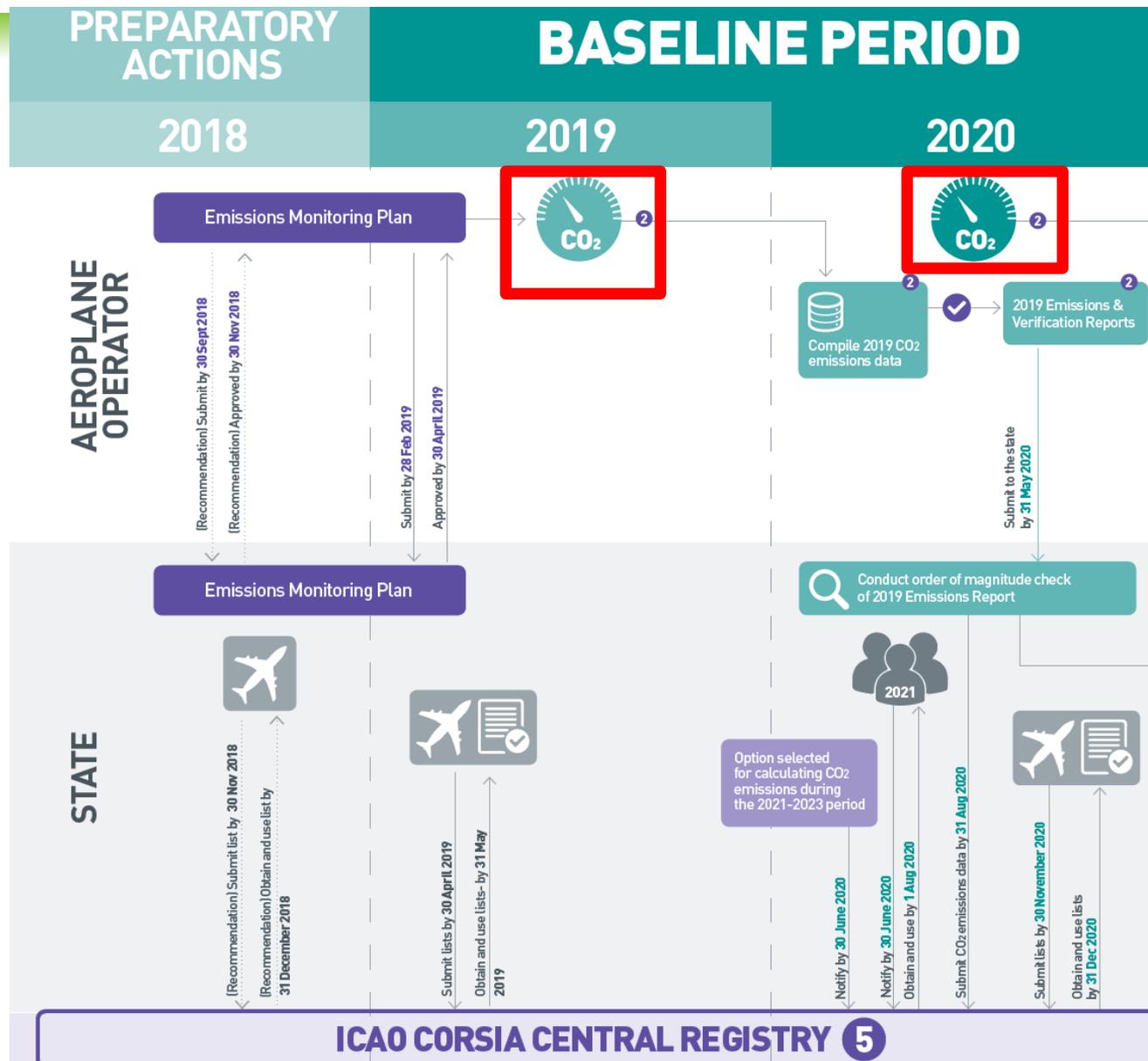
–Mandatory timeframe:  
 obtain and use **by 31 May 2019.**

**ICAO CORSIA Central Registry 5**





# 2020: Aeroplane Operator



Monitor 2020 CO<sub>2</sub> Emissions <sup>2</sup>



2019 CO<sub>2</sub> Emissions <sup>2</sup>

Compile:

Aeroplane operators compile 2019 CO<sub>2</sub> emissions data from international flights.

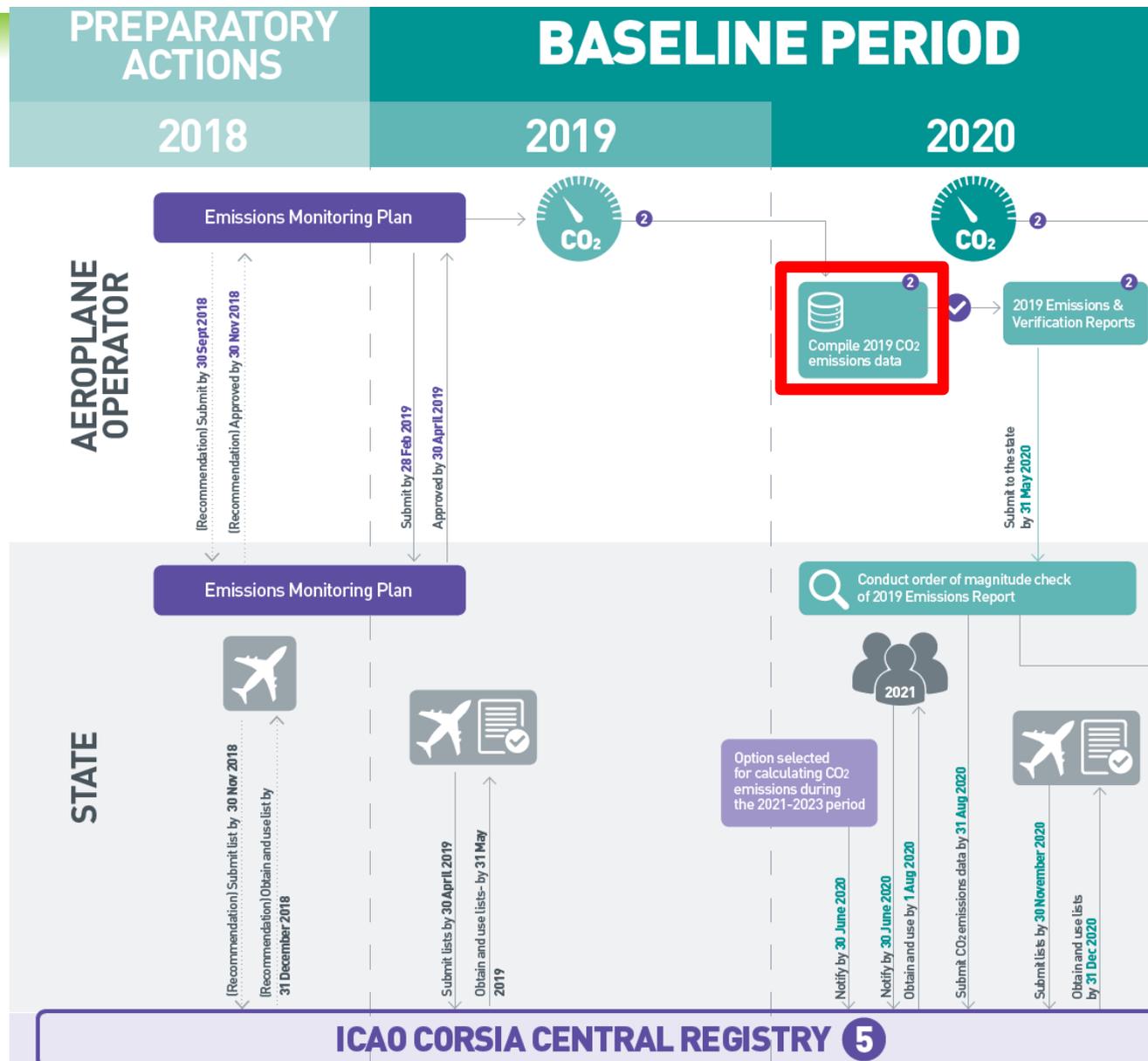
–Mandatory timeframe: complete by **31 May 2020**.



Compile 2019 CO<sub>2</sub> Emissions Data <sup>2</sup>



# 2020: Aeroplane Operator



Monitor 2020 CO<sub>2</sub> Emissions <sup>2</sup>



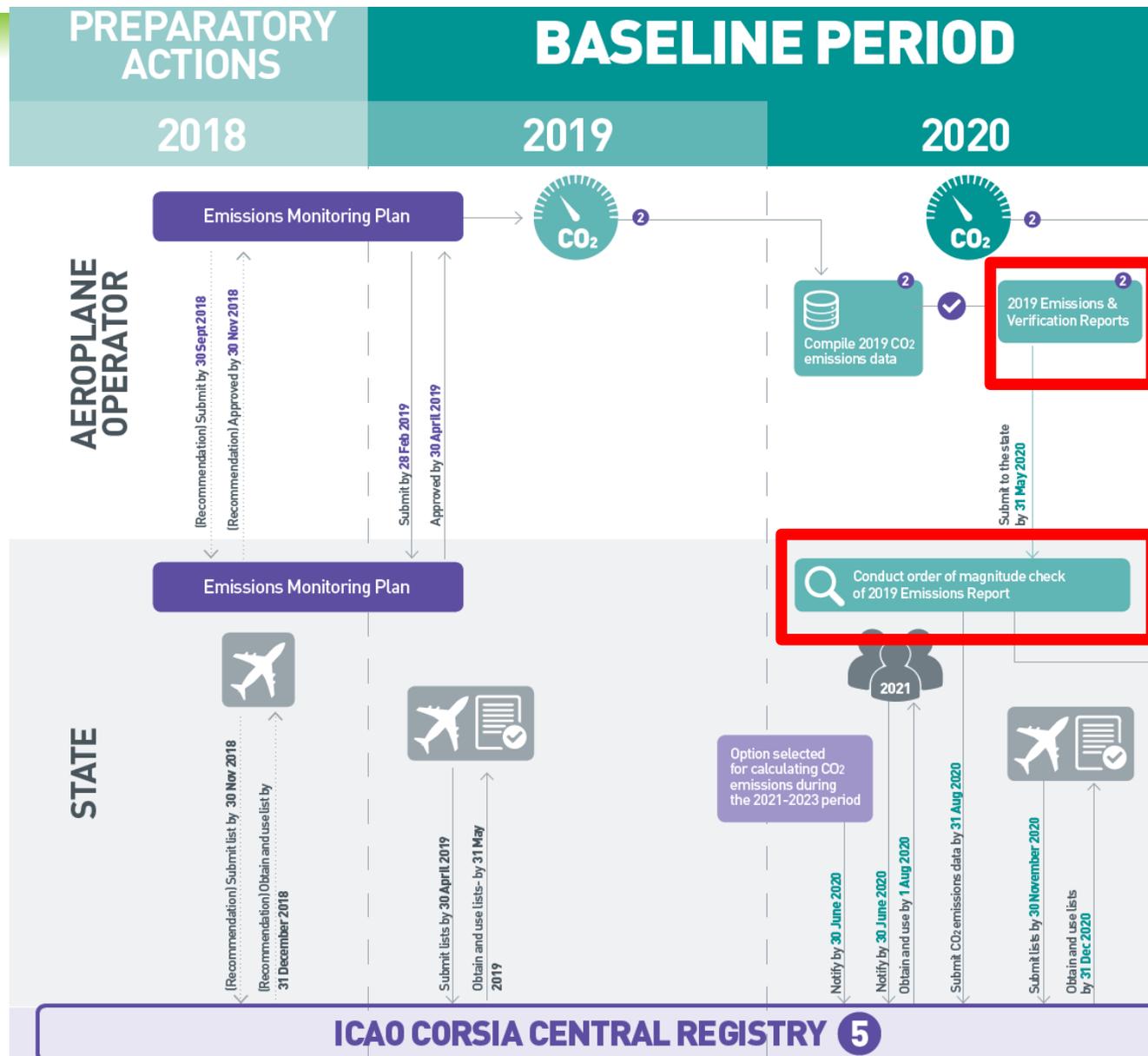
Compile 2019 CO<sub>2</sub> Emissions Data <sup>2</sup>

Generate & Verify:

Aeroplane operators generate their **2019 Emissions Report** and engage a Verification Body to verify the report.

A *Verification Body* performs a verification and generates a **Verification Report**

2019 Emissions & Verification Reports <sup>2</sup>

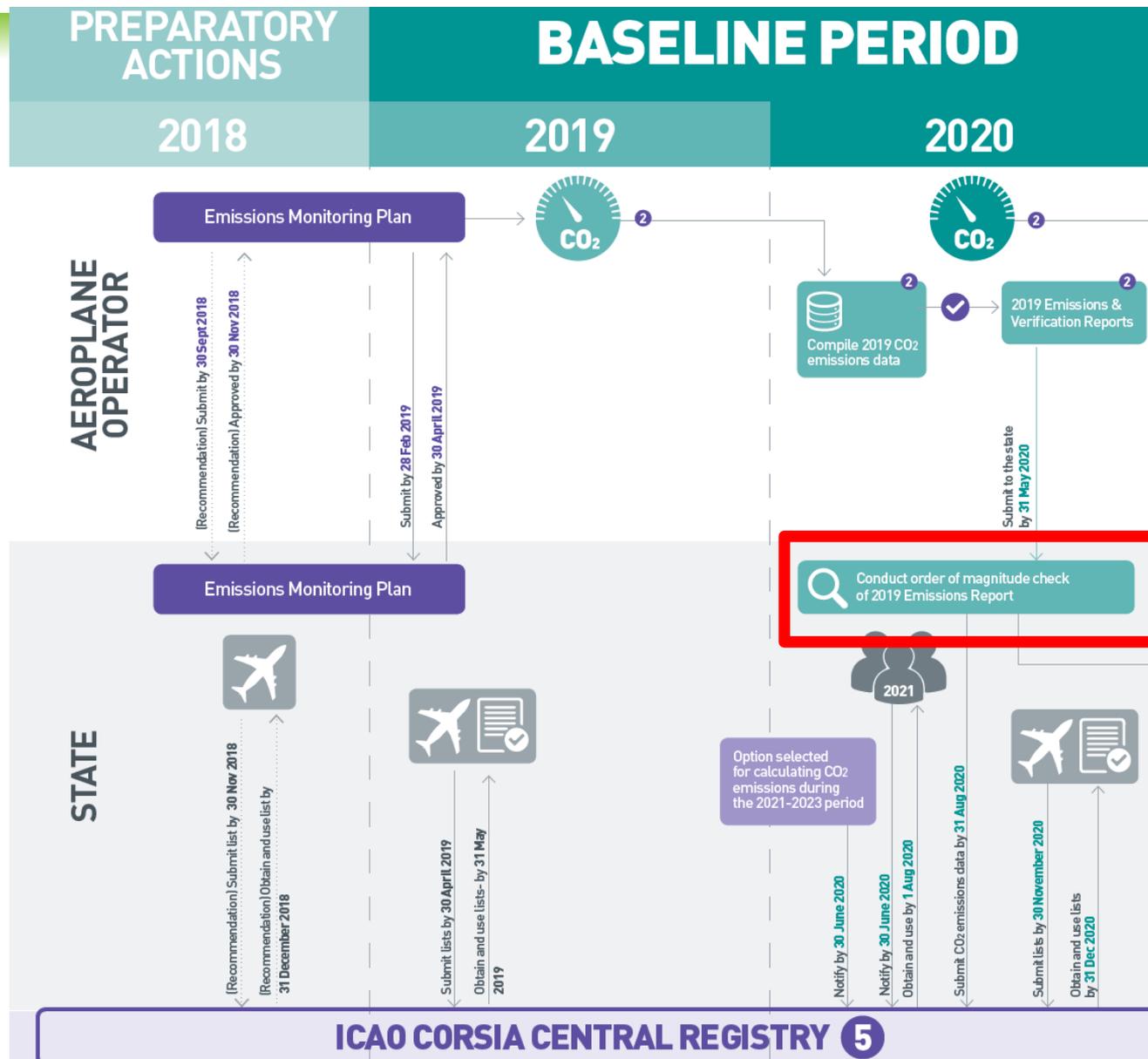


## 2019 Emissions & Verification Reports

Submit:  
 Aeroplane operators submit their 2019 Emissions Report and Verification Report to the State.  
 – Mandatory timeframe: submit by **31 May 2020**.

Check:  
 The State conducts an Order of Magnitude check of the Reports

## Order of Magnitude Check



## Order of Magnitude Check

### Submit:

States submit the requisite CO<sub>2</sub> emissions data to ICAO.

– *Mandatory timeframe:* submit by **31 August 2020**.

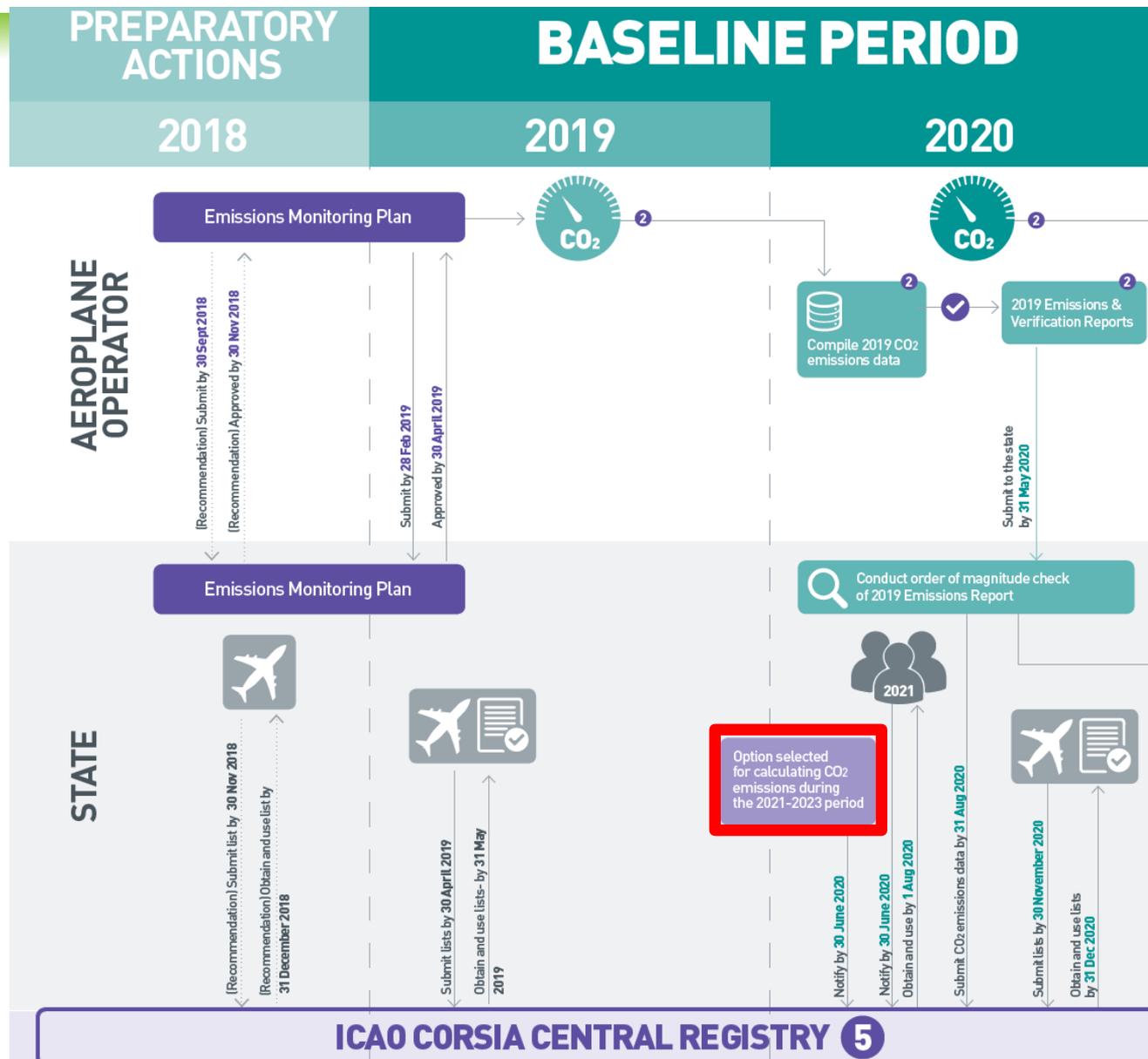
### Compile:

ICAO compiles the States' data to use as a component for the CORSIA baseline.

## ICAO CORSIA Central Registry 5



# 2020: State to ICAO



Select option for calculating CO<sub>2</sub> emissions during 2021-2023 period

Select:

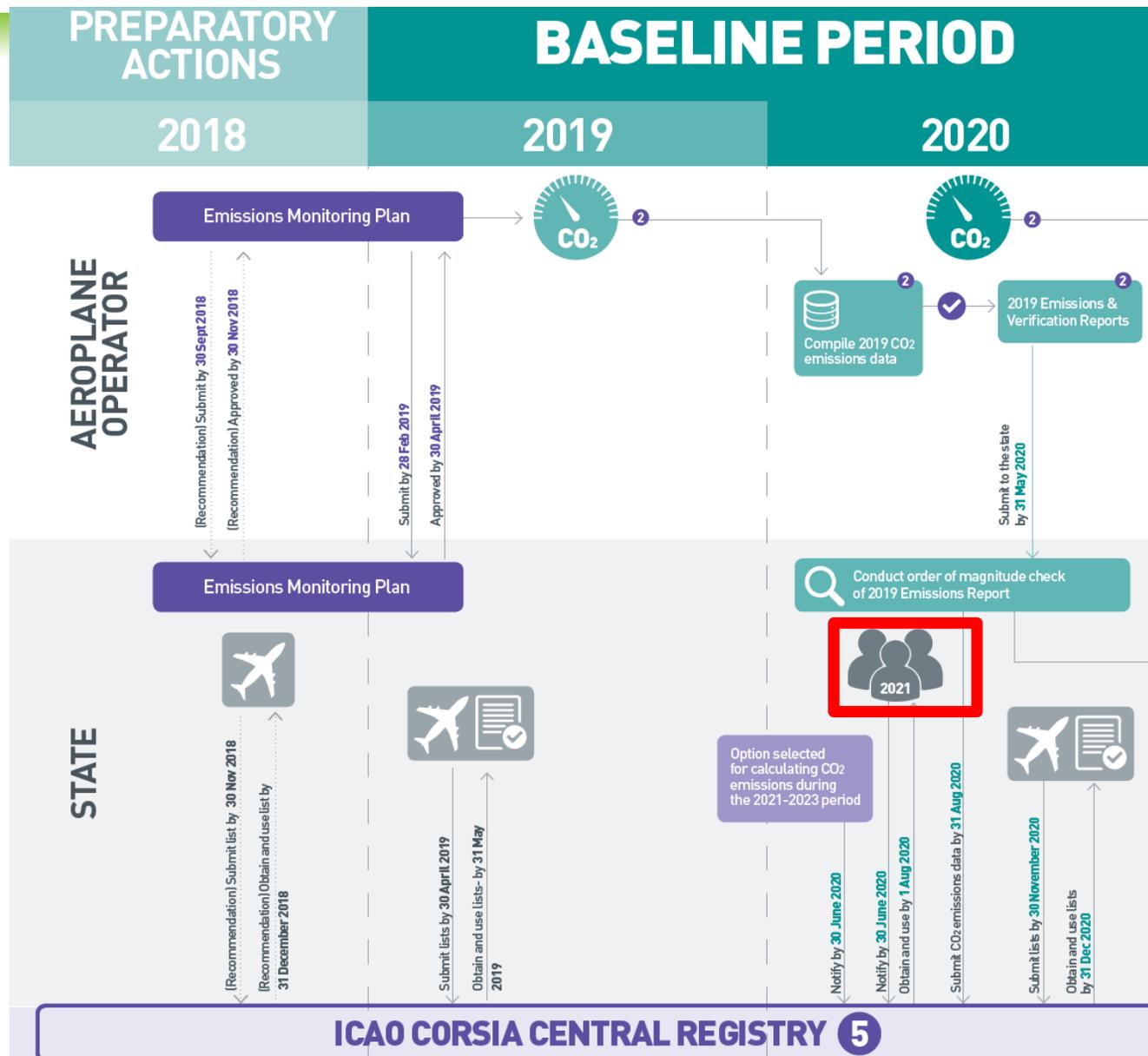
Covered in Session 5:  
CORSIA Calculation of CO<sub>2</sub> offsetting requirements

States select which option they will use to have their baseline calculated during the 2021-2023 period (Pilot Phase).

Notify:

States notify ICAO of their option.  
– Mandatory timeframe: notify by **30 June 2020**.

ICAO CORSIA Central Registry 5



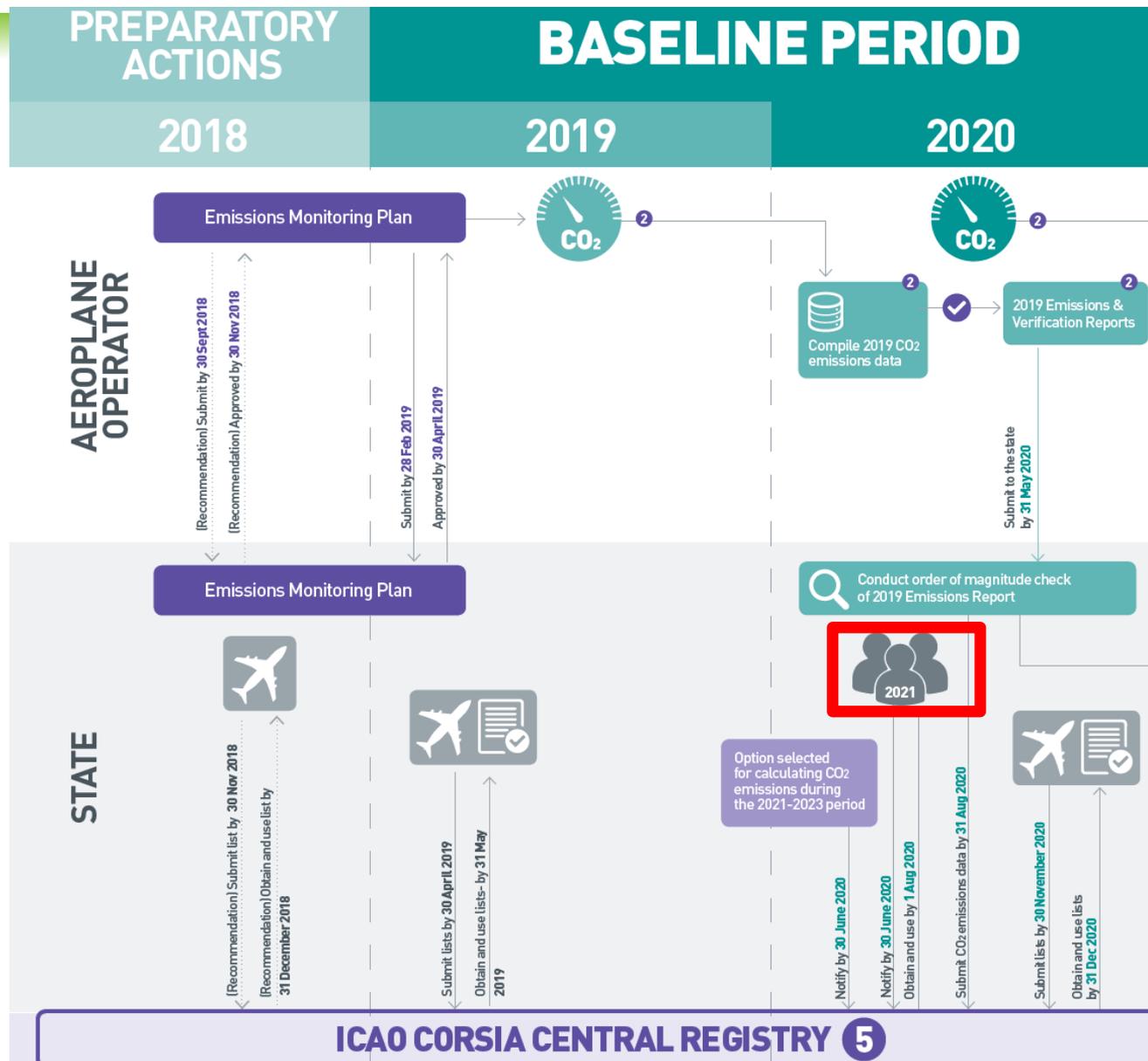
## State Participation in CORSIA in year 2021

Notify:

Covered in Session 5:  
CORSIA Calculation of CO<sub>2</sub> offsetting requirements

States notify ICAO of their participation in CORSIA offsetting in year 2021.  
– *Mandatory timeframe:* submit by **30 June 2020.**

## ICAO CORSIA Central Registry 5



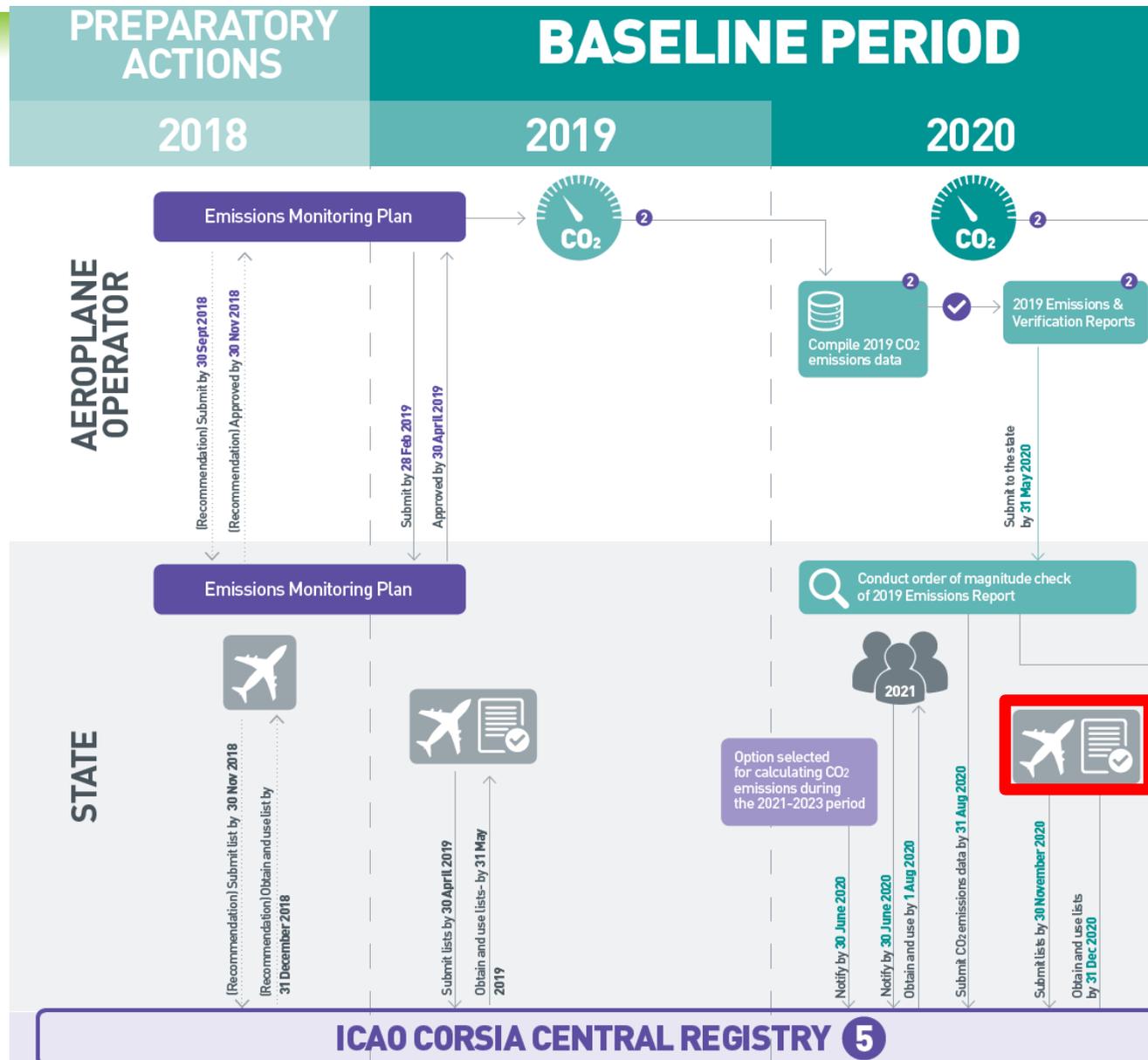
**State Participation in CORSIA in year 2021**

Compile & Publish:

ICAO compiles a list of States participating in CORSIA for 2021 (), and publishes the list for use by all States.

–Mandatory timeframe: States obtain and use **by 1 August 2020**.

**ICAO CORSIA Central Registry 5**



**Aeroplane Operator List & Verification Body List**

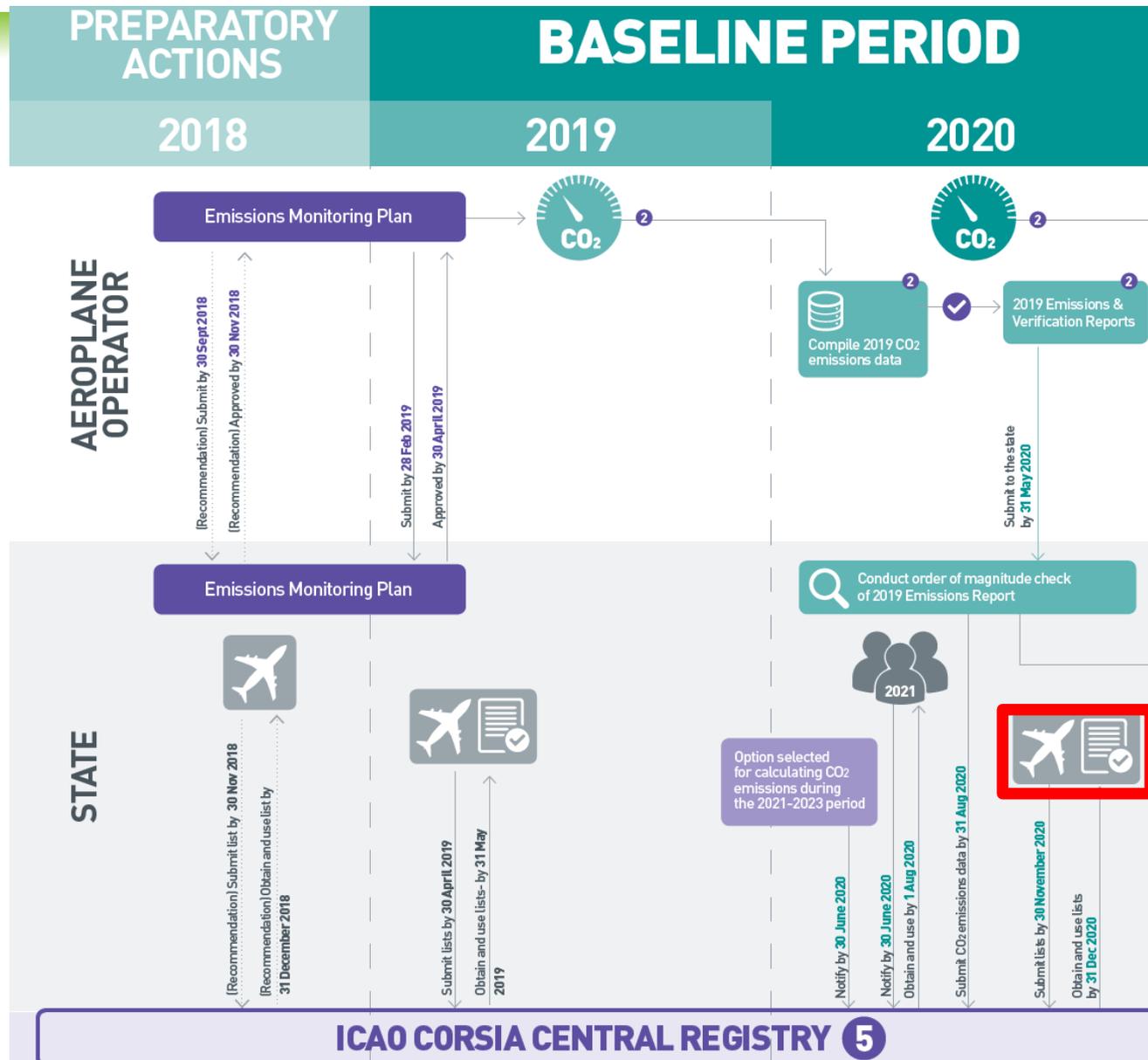
Submit:

States submit to ICAO a list of:

- Aeroplane operators (AO) attributed to the State, and
- Verification bodies accredited to the State

–Mandatory timeframe:  
submit by **30 November 2020.**

**ICAO CORSIA Central Registry 5**



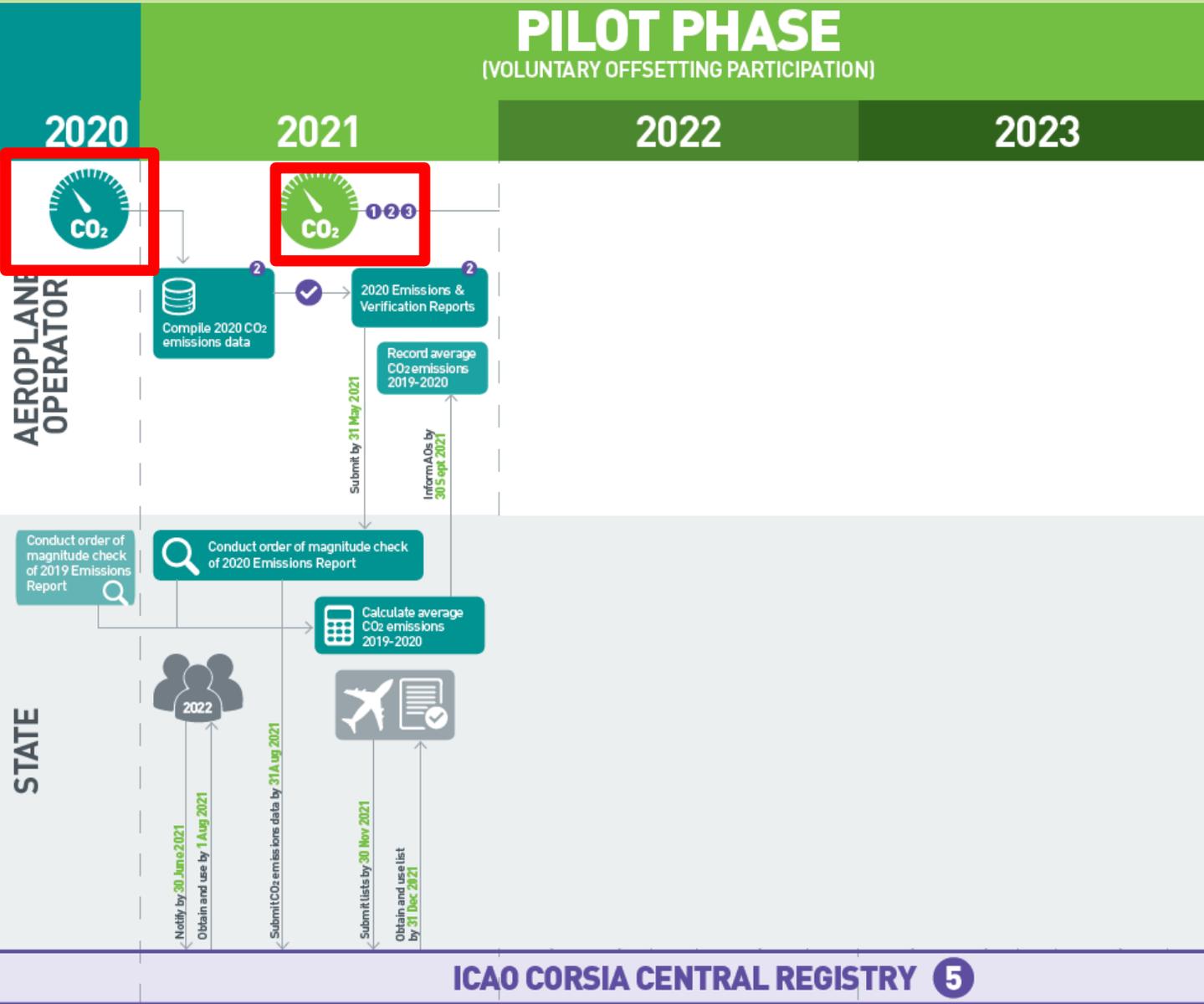
## Aeroplane Operator List & Verification Body List

### Compile & Publish:

ICAO compiles the lists submitted by States, and publishes a combined list for all States.

–Mandatory timeframe: obtain and use by **31 December 2020.**

## ICAO CORSIA Central Registry 5



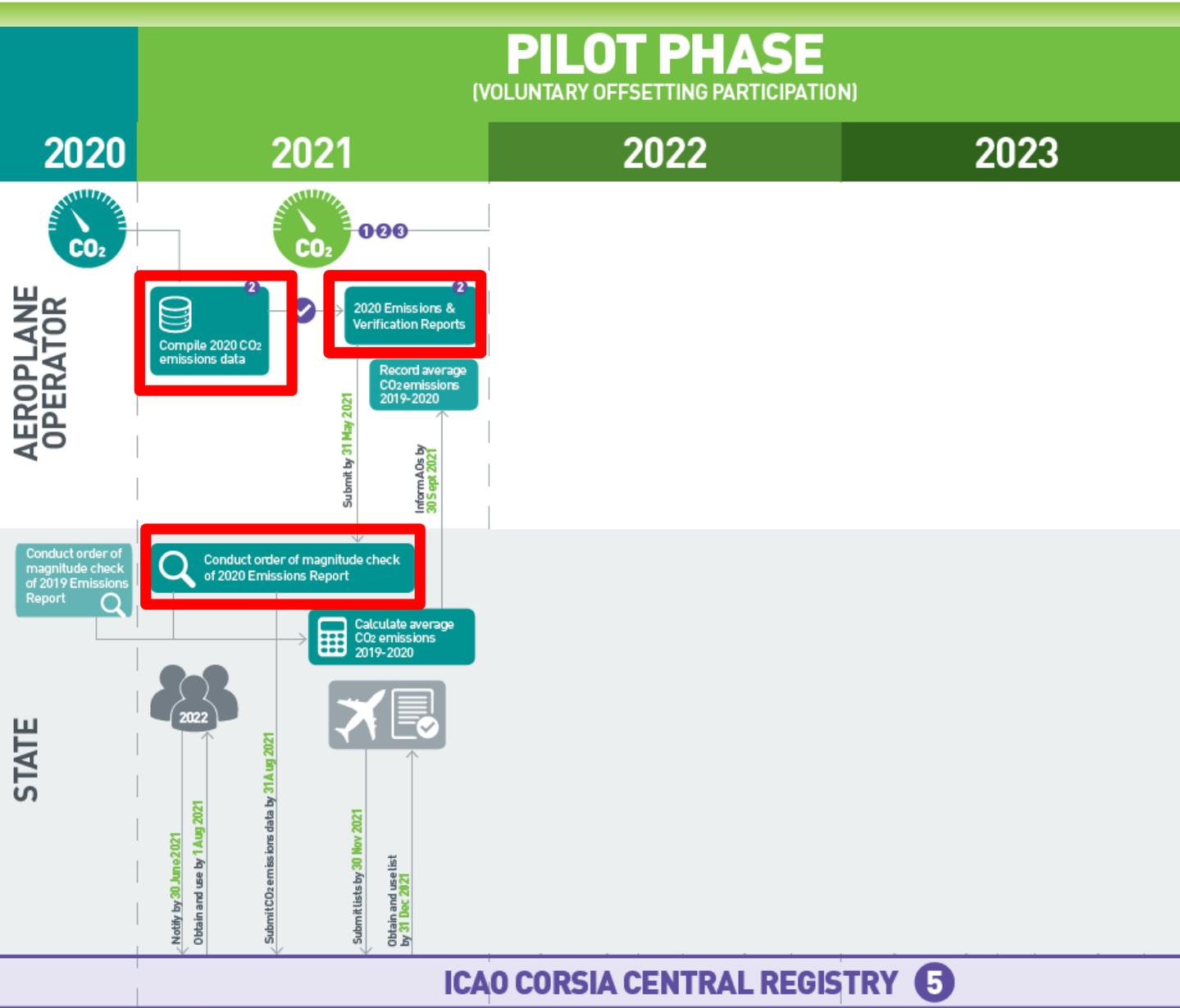
## 1 2 3 Monitor 2021 CO<sub>2</sub> Emissions

- 1 CORSIA Offsetting Participation State Pairs
- 2 ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT)
- 3 CORSIA Eligible Fuels

## 2 2020 CO<sub>2</sub> Emissions

Compile:  
AOs compile 2020 CO<sub>2</sub> emissions data from **international flights.**

## 2 Compile 2020 CO<sub>2</sub> Emissions Data



**2** **Compile 2020 CO<sub>2</sub> Emissions Data**

**2** **2020 Emissions & Verification Reports**

Submit:

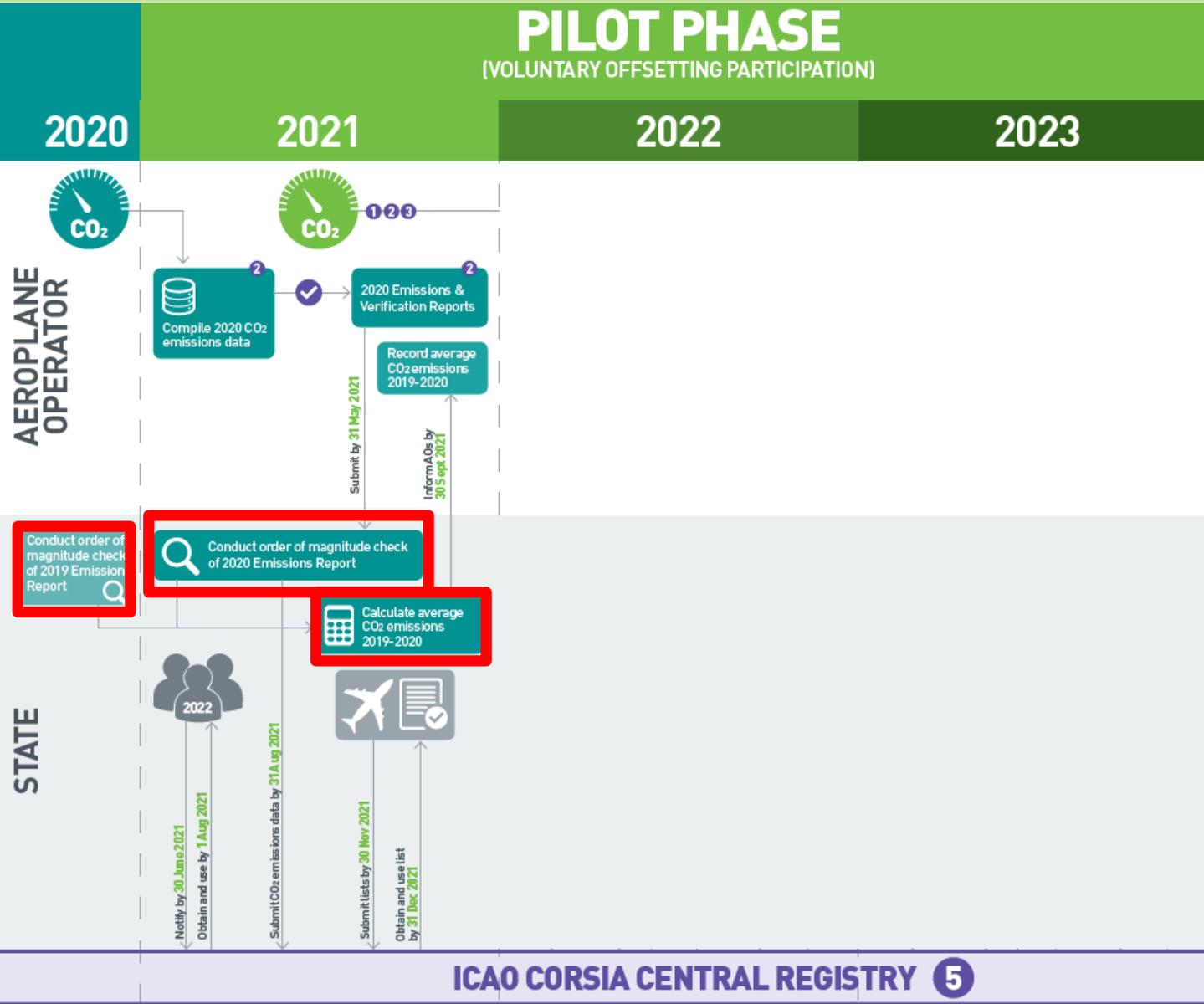
- Mandatory timeframe: submit by **31 May 2021**.

**Q** **Order of Magnitude Check**

Submit:

- Mandatory timeframe: submit by **31 August 2021**.

**5** **ICAO CORSIA Central Registry**



Order of Magnitude Check

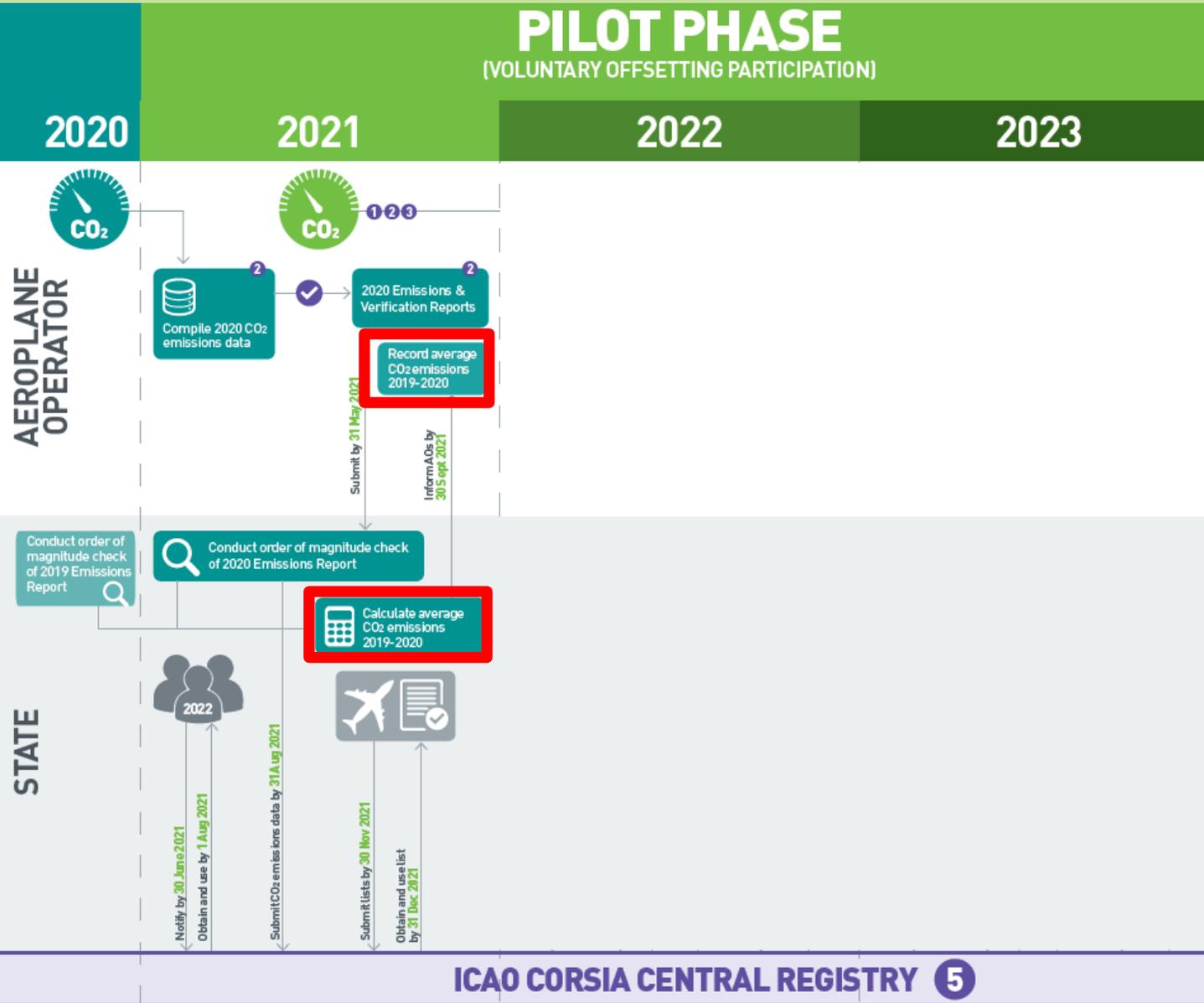
Order of Magnitude Check

Calculate:

States calculate the average CO<sub>2</sub> emissions of 2019-2020, based on Emissions Reports for those years.

– *Mandatory timeframe:*  
calculate by **30 September 2021**.

Calculate Average CO<sub>2</sub> Emissions



## Record Average CO<sub>2</sub> Emissions

### Inform and Record:

States inform aeroplane operators of their average CO<sub>2</sub> emissions for the period of 2019-2020.

- *Mandatory timeframe:* calculate by **30 September 2021**.

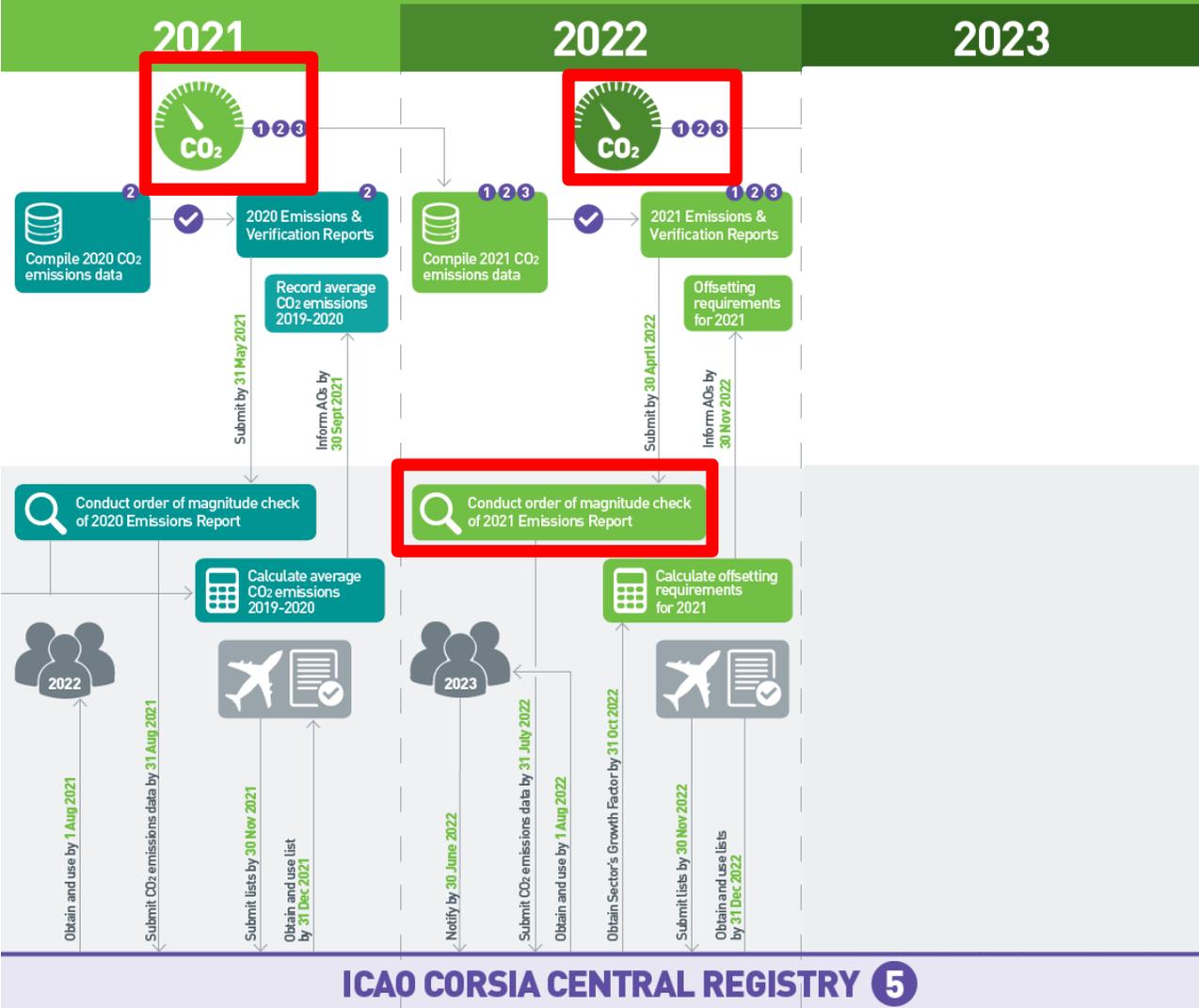
Aeroplane operators record their average CO<sub>2</sub> emissions for the period of 2019-2020.



## Calculate Average CO<sub>2</sub> Emissions



## PILOT PHASE (VOLUNTARY OFFSETTING PARTICIPATION)



Monitor 2022 CO<sub>2</sub> Emissions <sup>1 2 3</sup>



2021 CO<sub>2</sub> Emissions <sup>1 2 3</sup>



Compile 2021 CO<sub>2</sub> Emissions Data <sup>1 2 3</sup>



Generate & Verify:

– Complete by **30 April 2022.**

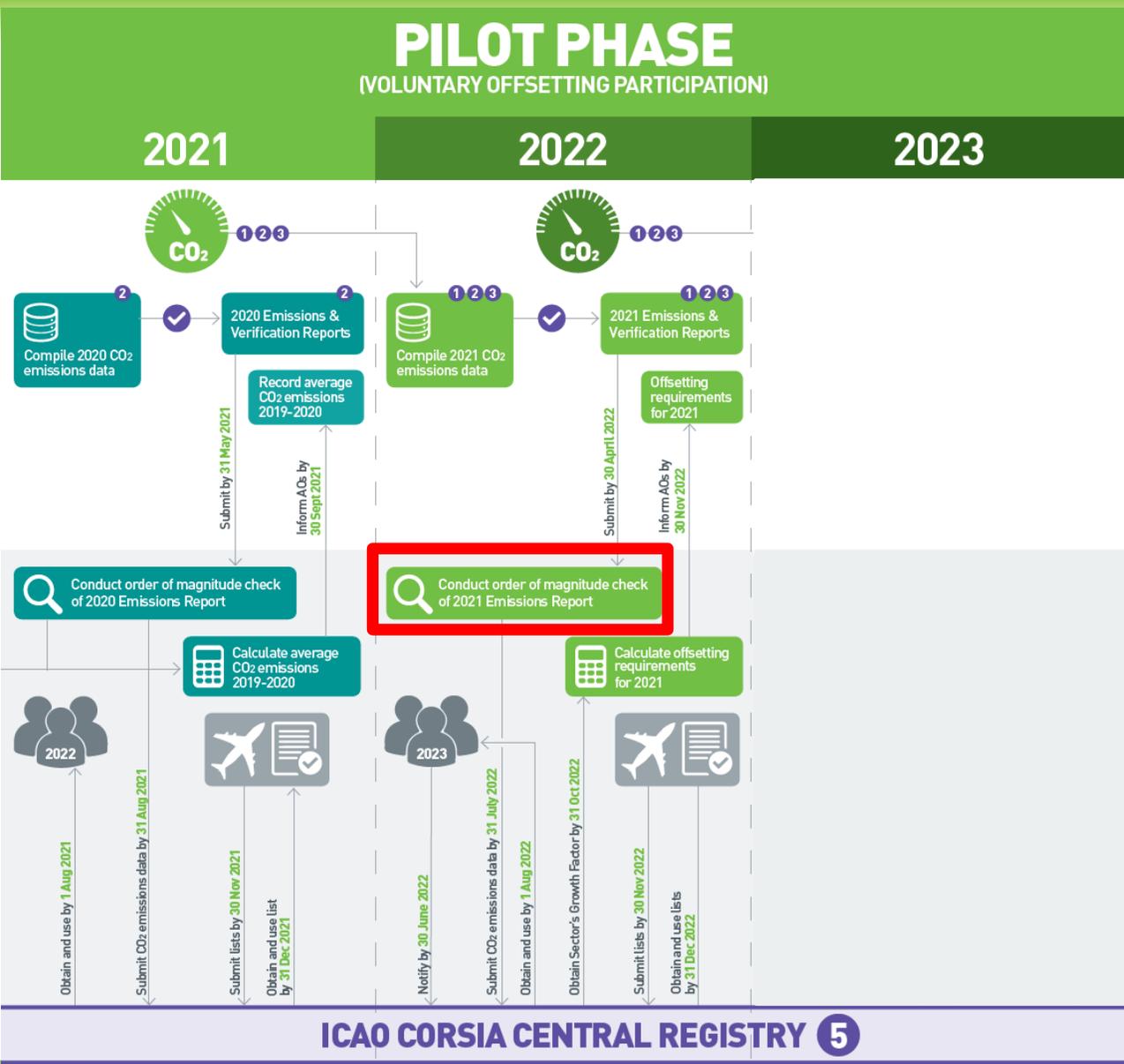
2021 Emissions & Verification Reports <sup>1 2 3</sup>

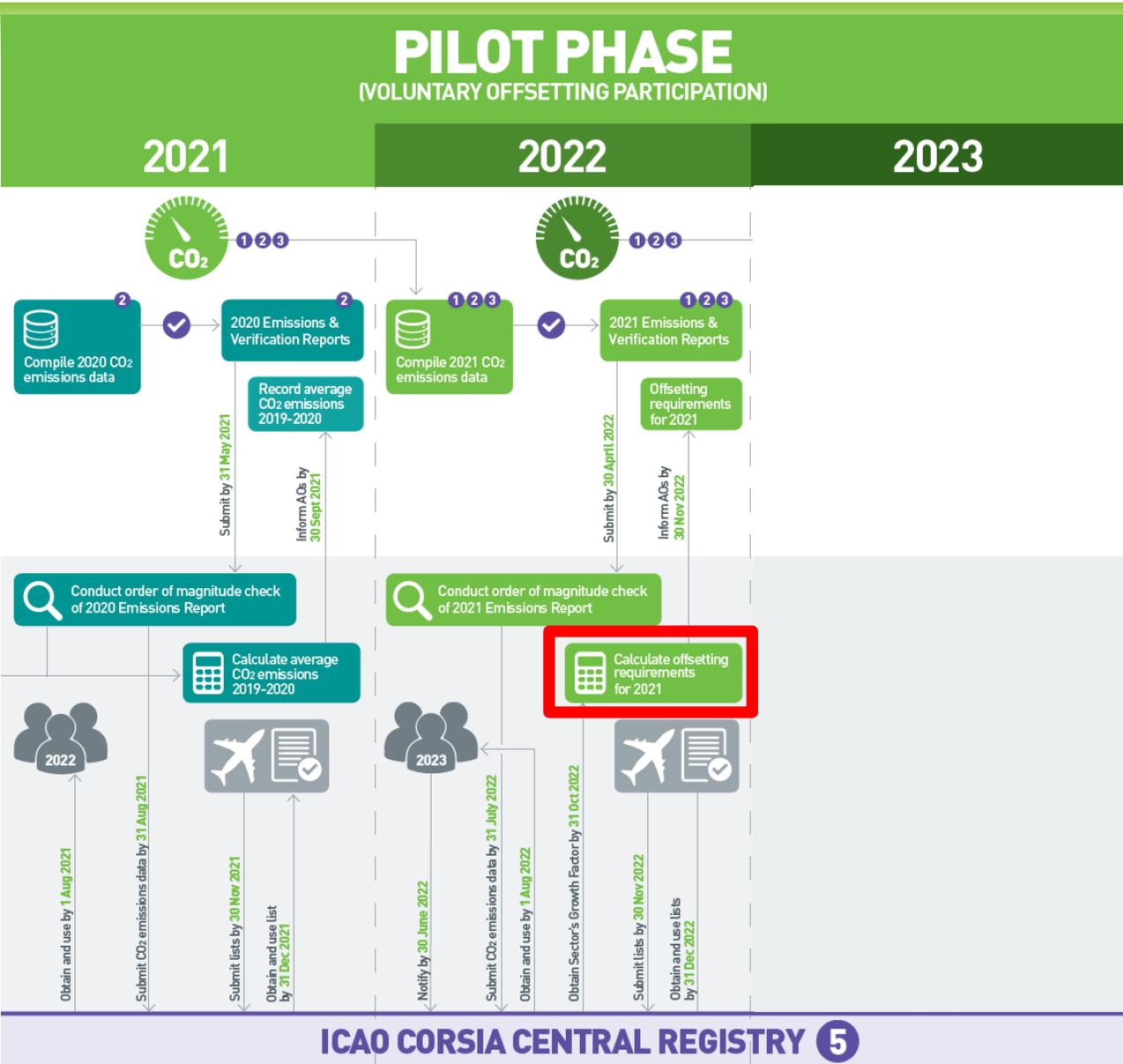
Check:

– Complete by **31 July 2022.**



Order of Magnitude Check





Calculate offsetting requirements for 2021

Obtain Sector's Growth Factor:

– Mandatory timeframe:  
Submit by **31 October 2022**.

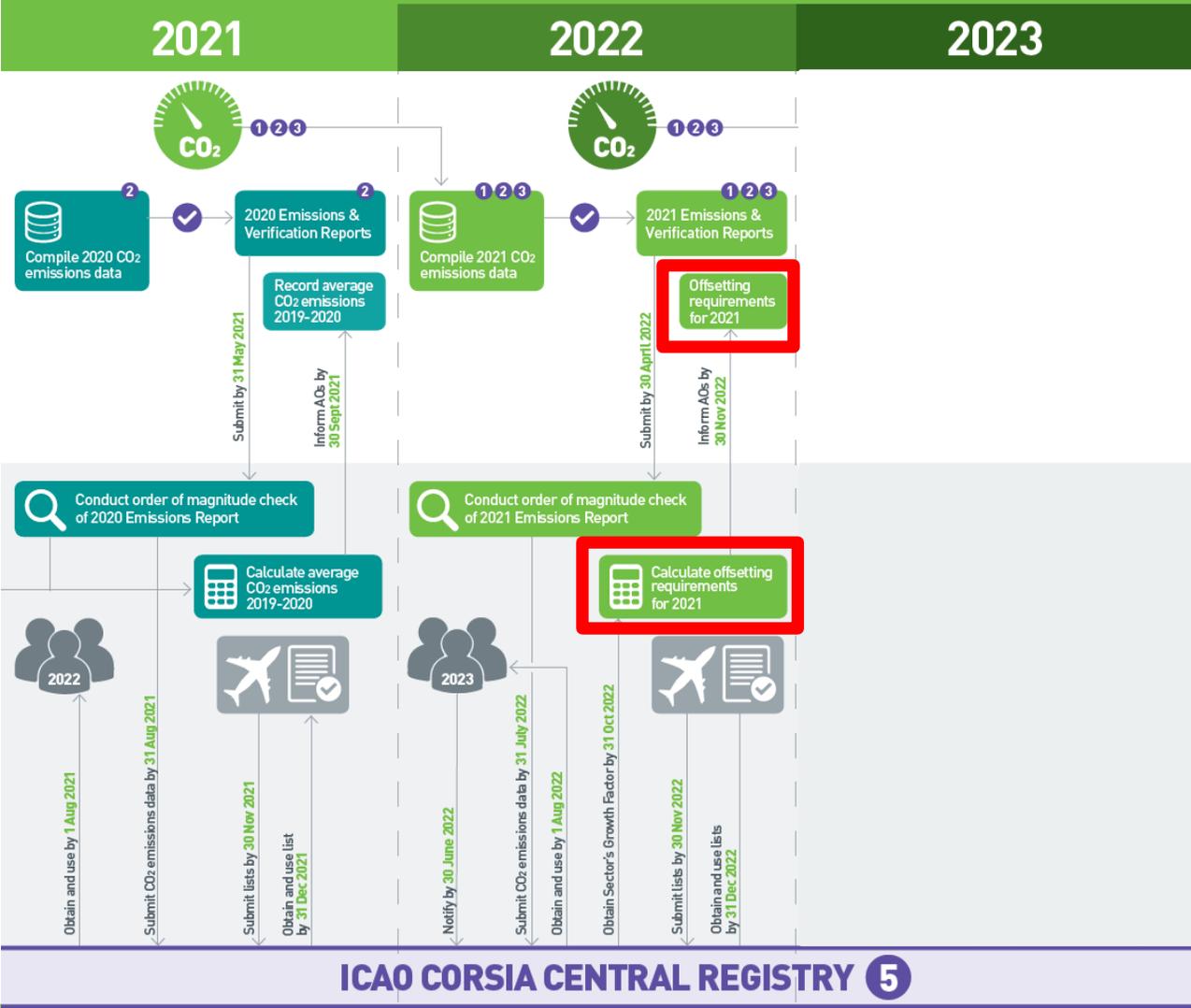
**ICAO CORSIA Central Registry**



Calculate Sector's Growth Factor for 2021



## PILOT PHASE (VOLUNTARY OFFSETTING PARTICIPATION)



## Offsetting requirements for 2021

### Inform:

States use the Sector's Growth Factor and calculates and informs each of their aeroplane operators of their offsetting requirements for the previous year.

- *Mandatory timeframe:* Inform Aeroplane Operators **by 30 November 2022.**

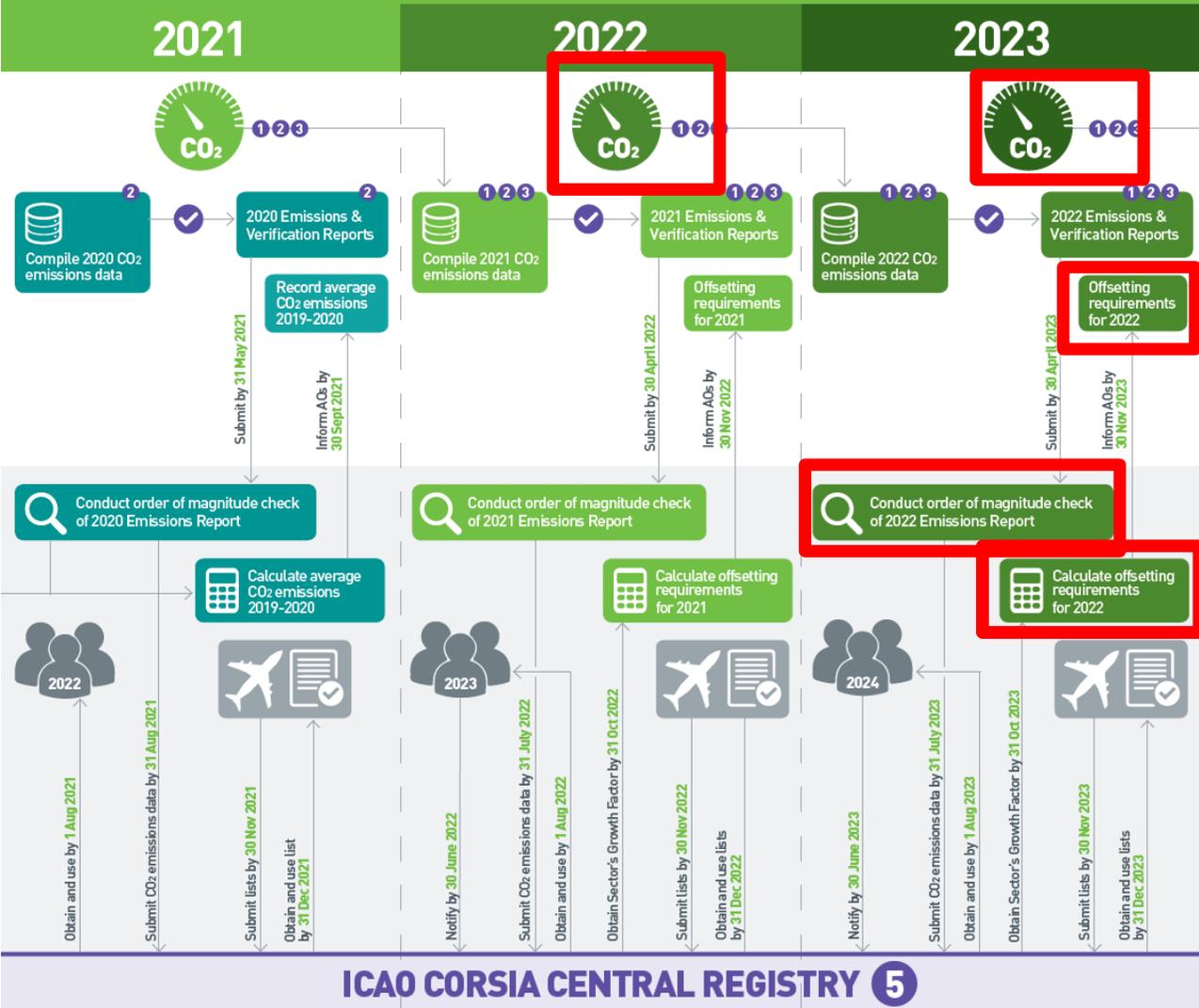
Calculate offsetting requirements for 2021



# 2023: Aeroplane Operator to State to ICAO



## PILOT PHASE (VOLUNTARY OFFSETTING PARTICIPATION)



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Monitor 2023 CO<sub>2</sub> Emissions 1 2 3



Compile 2022 CO<sub>2</sub> Emissions Data 1 2 3

2022 Emissions & Verification Reports 1 2 3

- Submit CO<sub>2</sub> emissions data by 30 April 2023



Order of Magnitude Check

- Submit CO<sub>2</sub> emissions data by 31 July 2023

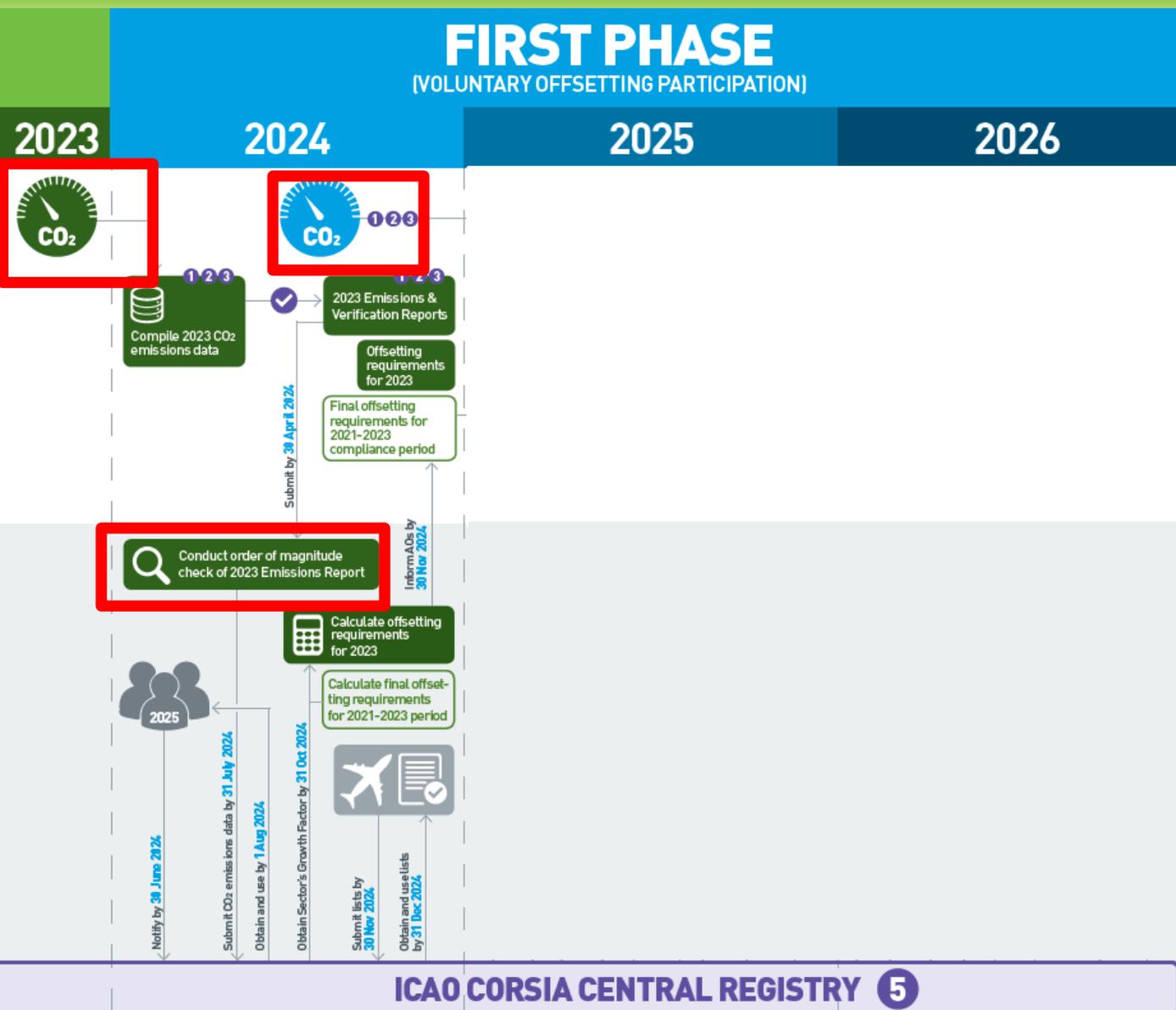
ICAO CORSIA Central Registry 5



Calculate offsetting requirements for 2022

- Inform Aeroplane Operators by 30 November 2023

Offsetting requirements for 2022



## Monitor 2024 CO<sub>2</sub> Emissions <sup>1 2 3</sup>

## Compile 2023 CO<sub>2</sub> Emissions Data <sup>1 2 3</sup>

## 2023 Emissions & Verification Reports <sup>1 2 3</sup>

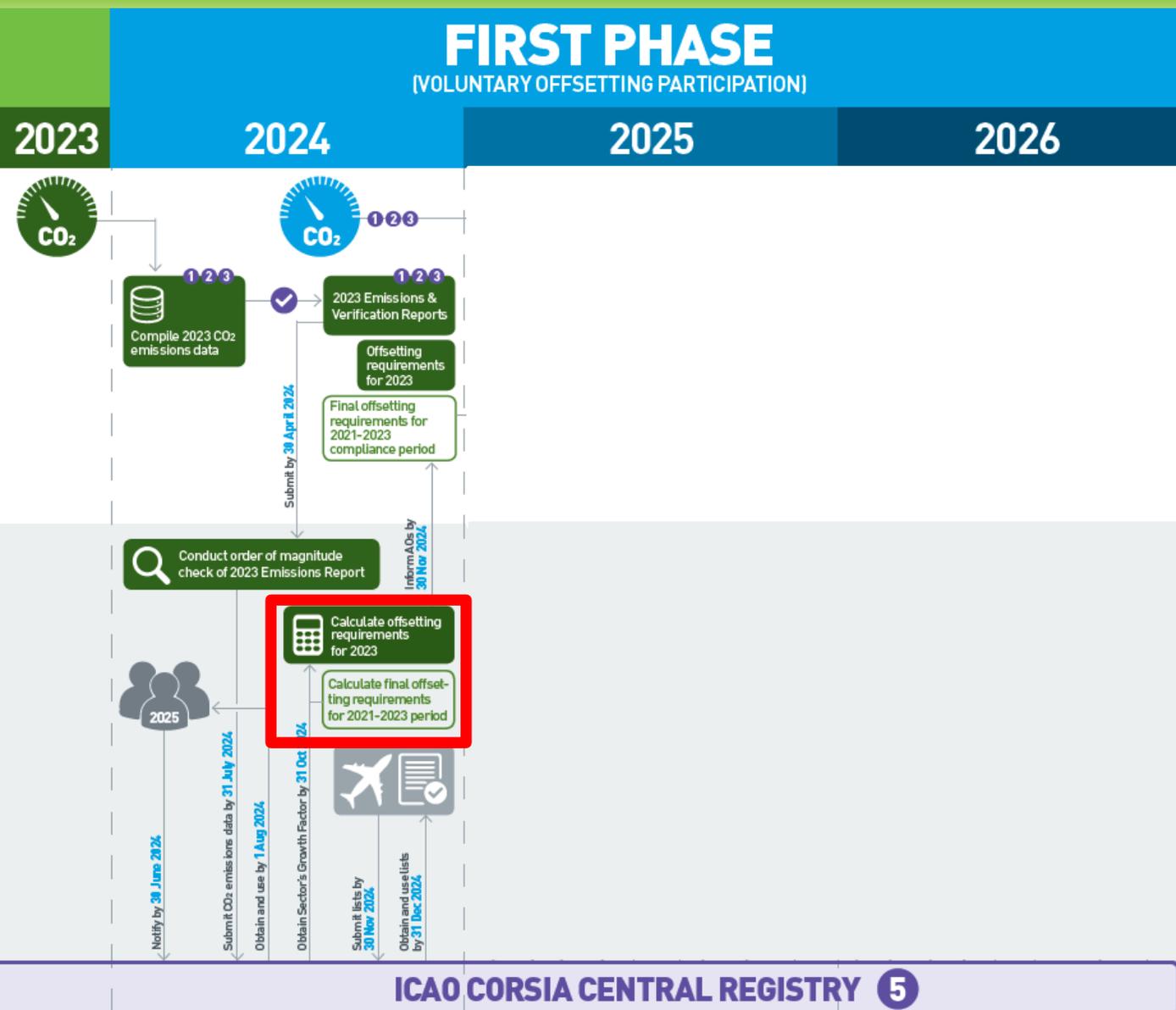
– Submit by **30 April 2024**.

## Order of Magnitude Check <sup>1 2 3</sup>

– Submit by **31 July 2024**.

## ICAO CORSIA Central Registry <sup>5</sup>

## Calculate Sector's Growth Factor for 2023



Calculate offsetting requirements for 2023

Calculate total final offsetting requirements for 2021-2023 period

Obtain Sector's Growth Factor:

– *Mandatory timeframe:*  
Submit by **31 October 2024.**

ICAO CORSIA Central Registry

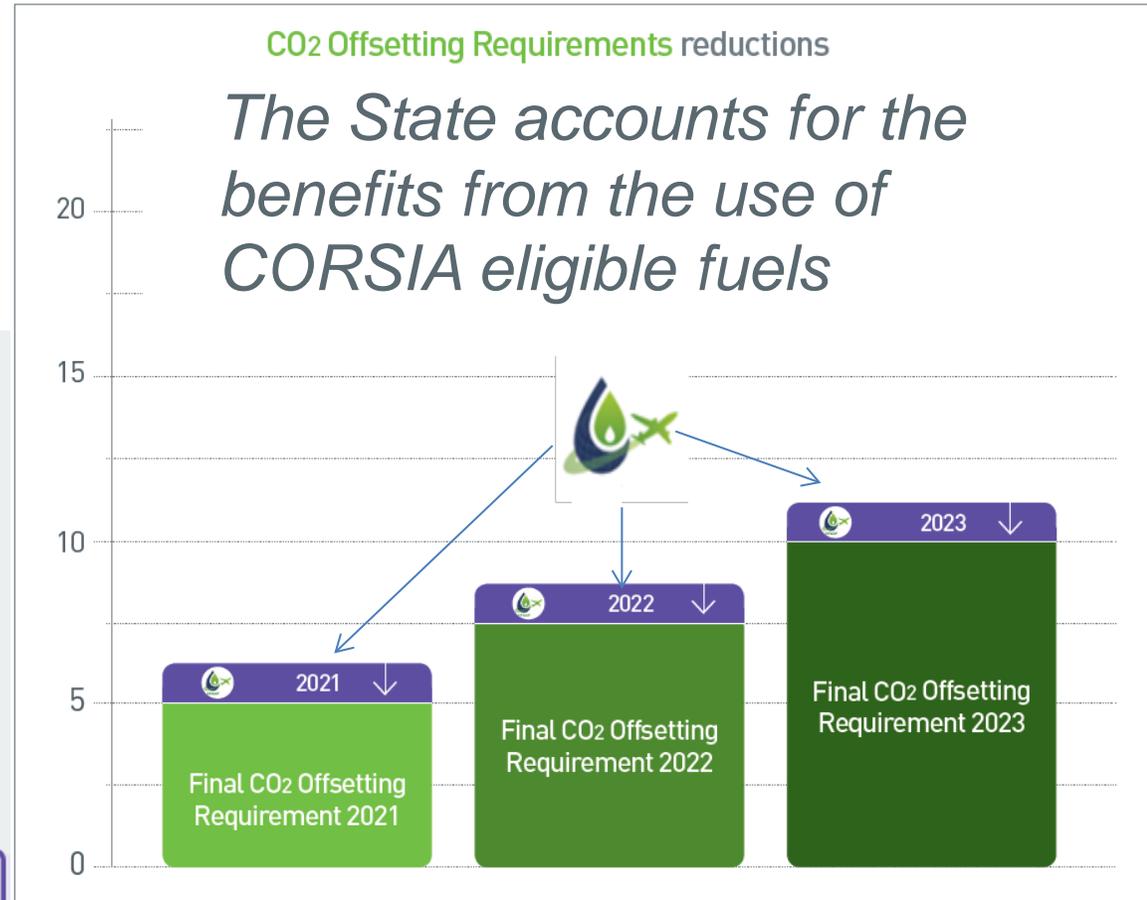
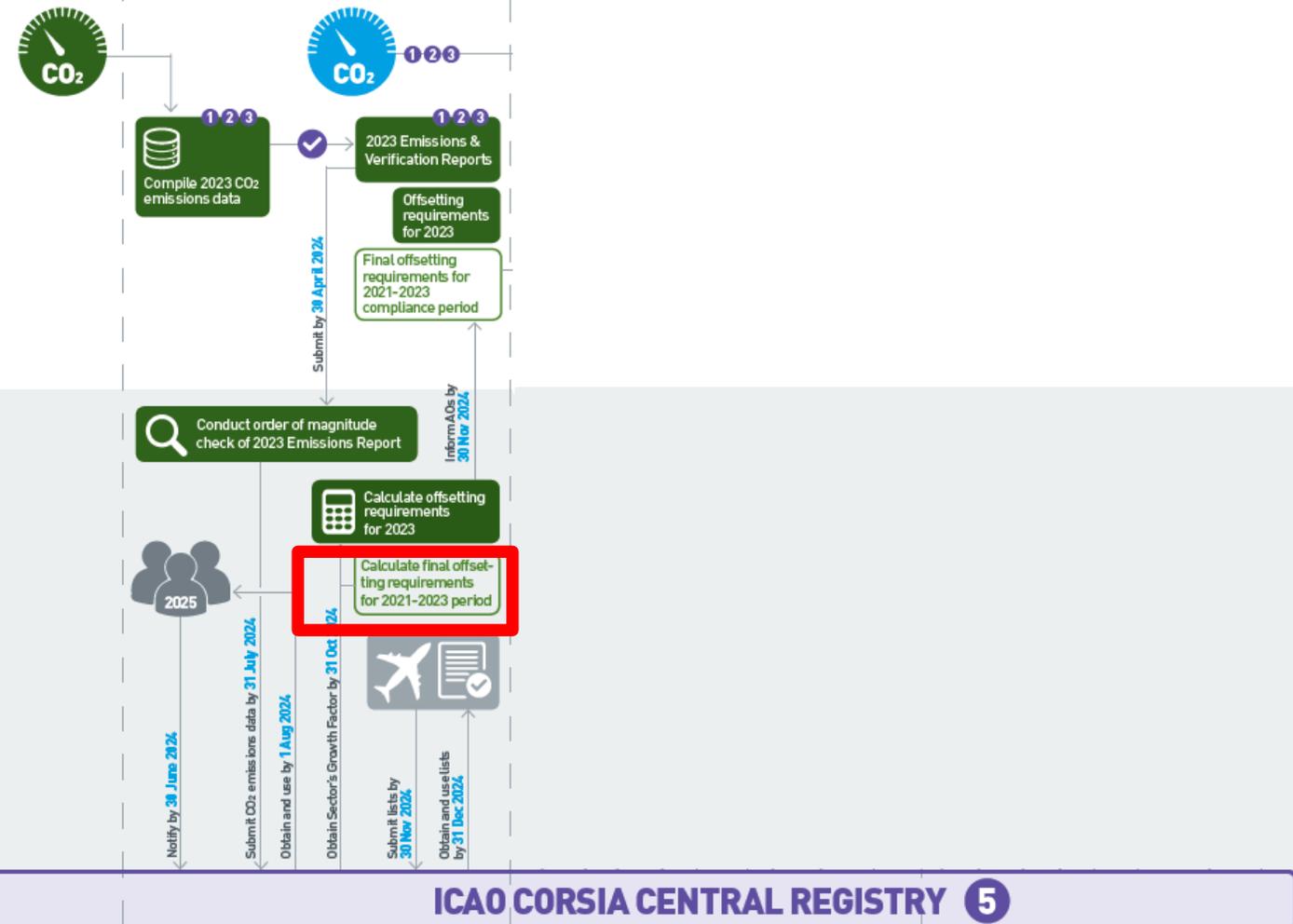
Calculate Sector's Growth Factor for 2023



## FIRST PHASE (VOLUNTARY OFFSETTING PARTICIPATION)

2023      2024      2025      2026

**Calculate total final offsetting requirements for 2021-2023 period**

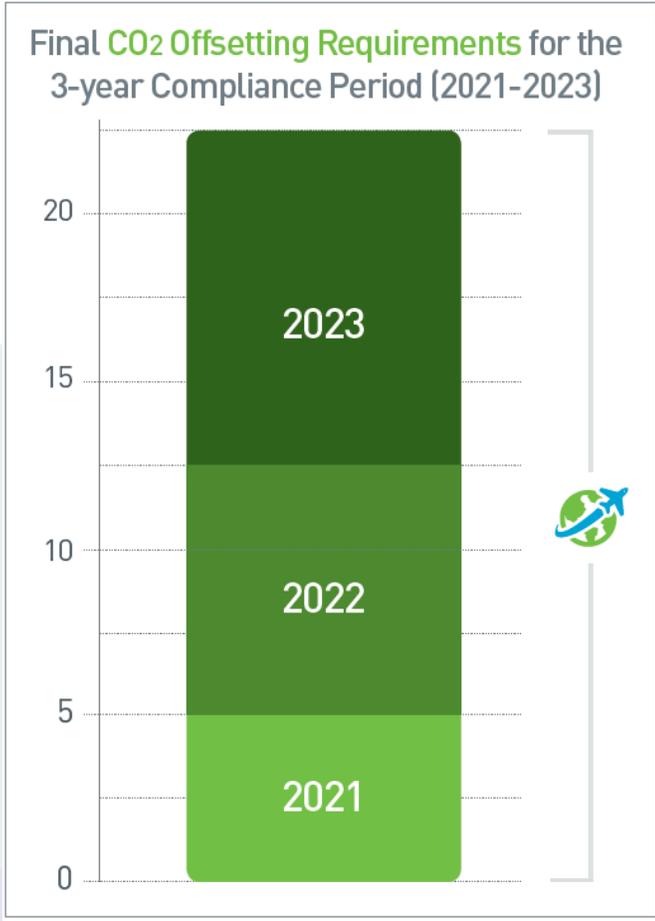
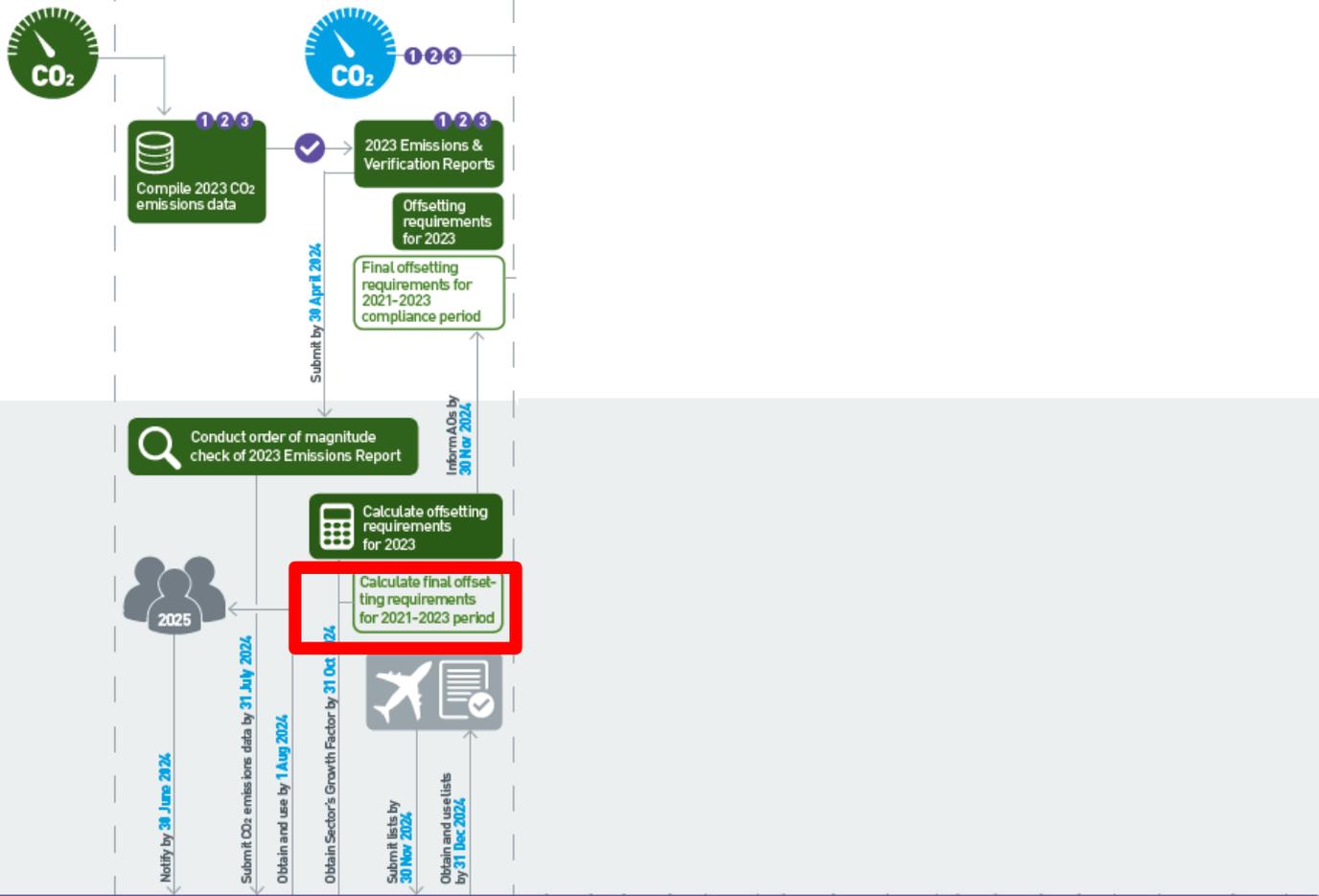




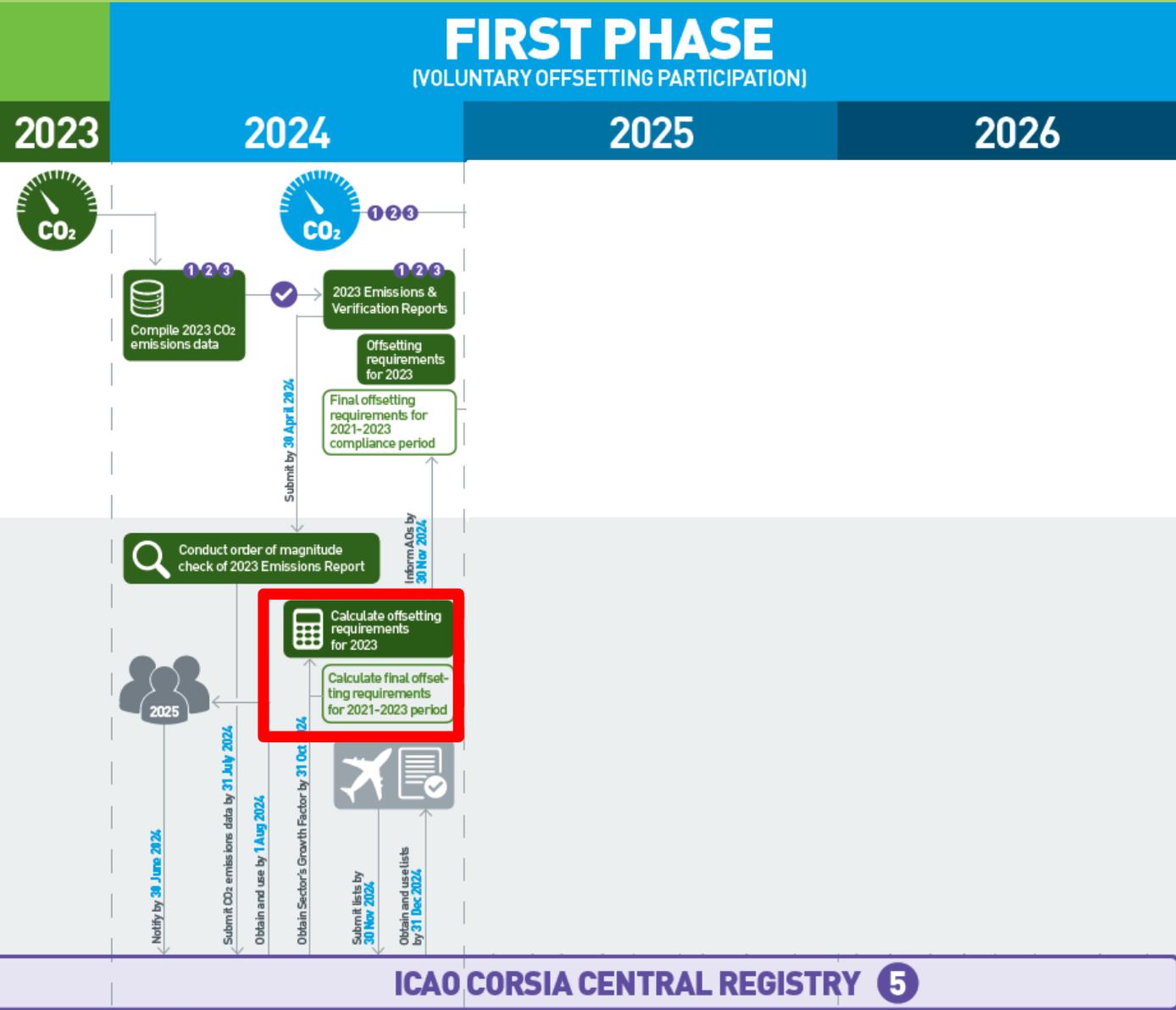
## FIRST PHASE (VOLUNTARY OFFSETTING PARTICIPATION)

2023      2024      2025      2026

**Calculate total final offsetting requirements for 2021-2023 period**



*The State compiles the offsetting requirements for 2021-2023 and informs each operator of its total final CO<sub>2</sub> offsetting requirements for a 3-year compliance period*



Offsetting requirements for 2023

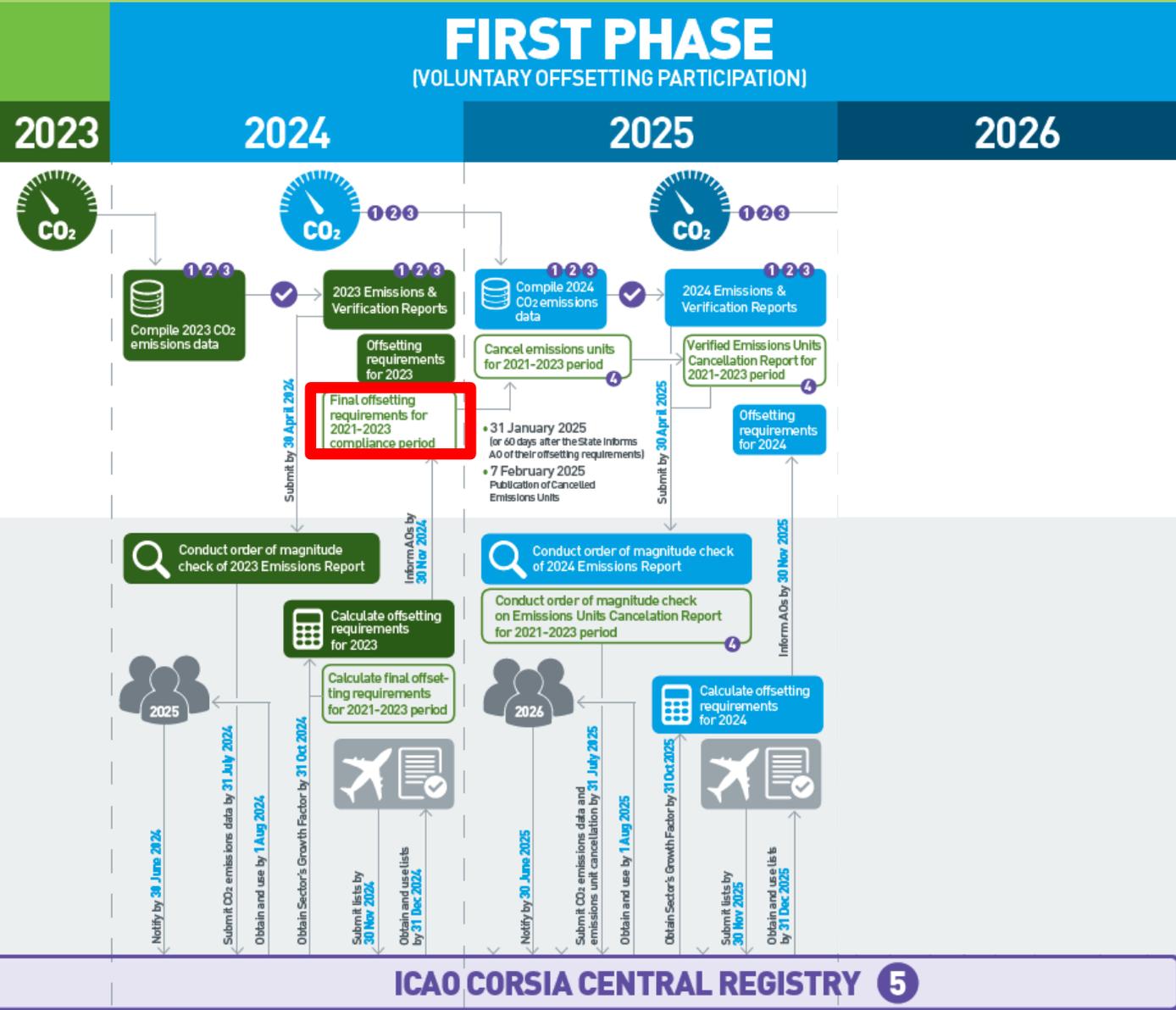
Total final offsetting requirements for 2021-2023 compliance period

Inform:

- Inform Aeroplane Operators by **30 November 2024**.

Calculate offsetting requirements for 2023

Calculate total final offsetting requirements for 2021-2023 period



Total final offsetting requirements for 2021-2023 compliance period

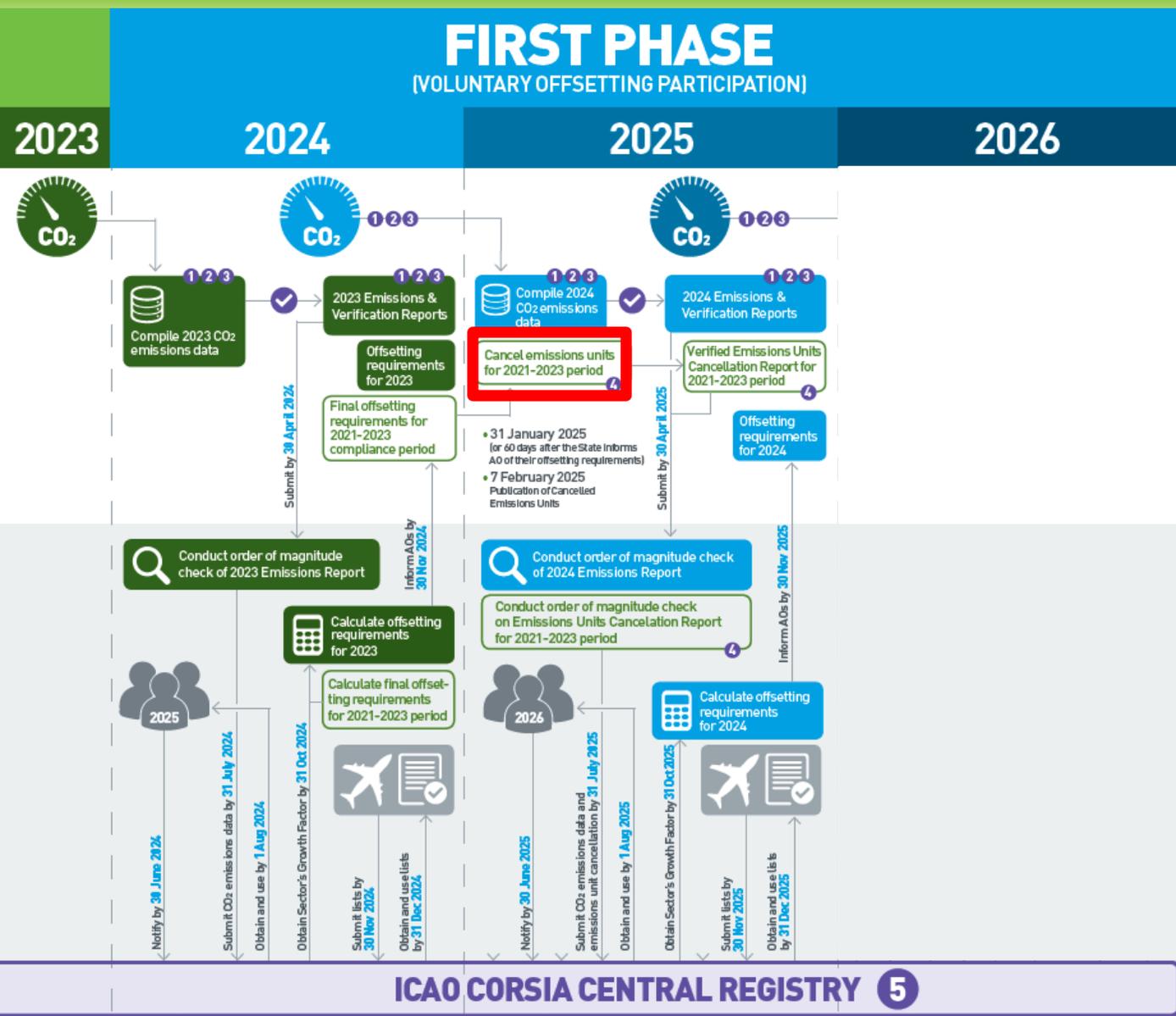
Cancel emissions units for 2021-2023 period 4

Cancel:

- Complete by **31 January 2025**, or 60 days after State informs of offsetting requirements.

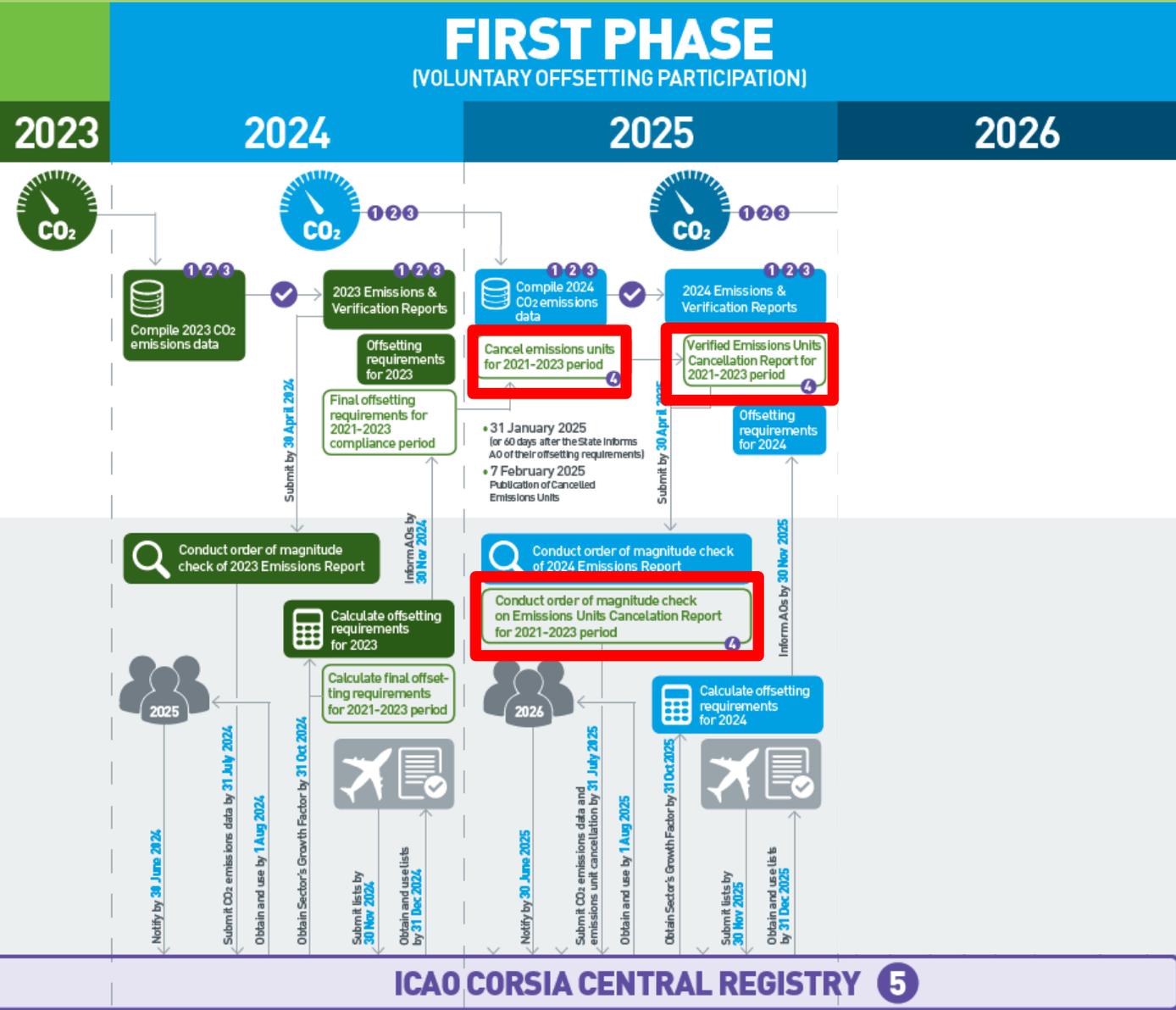
Publish:

- Publish list of cancelled emissions units by **7 February 2025**.



## Cancel emissions units for 2021-2023 period





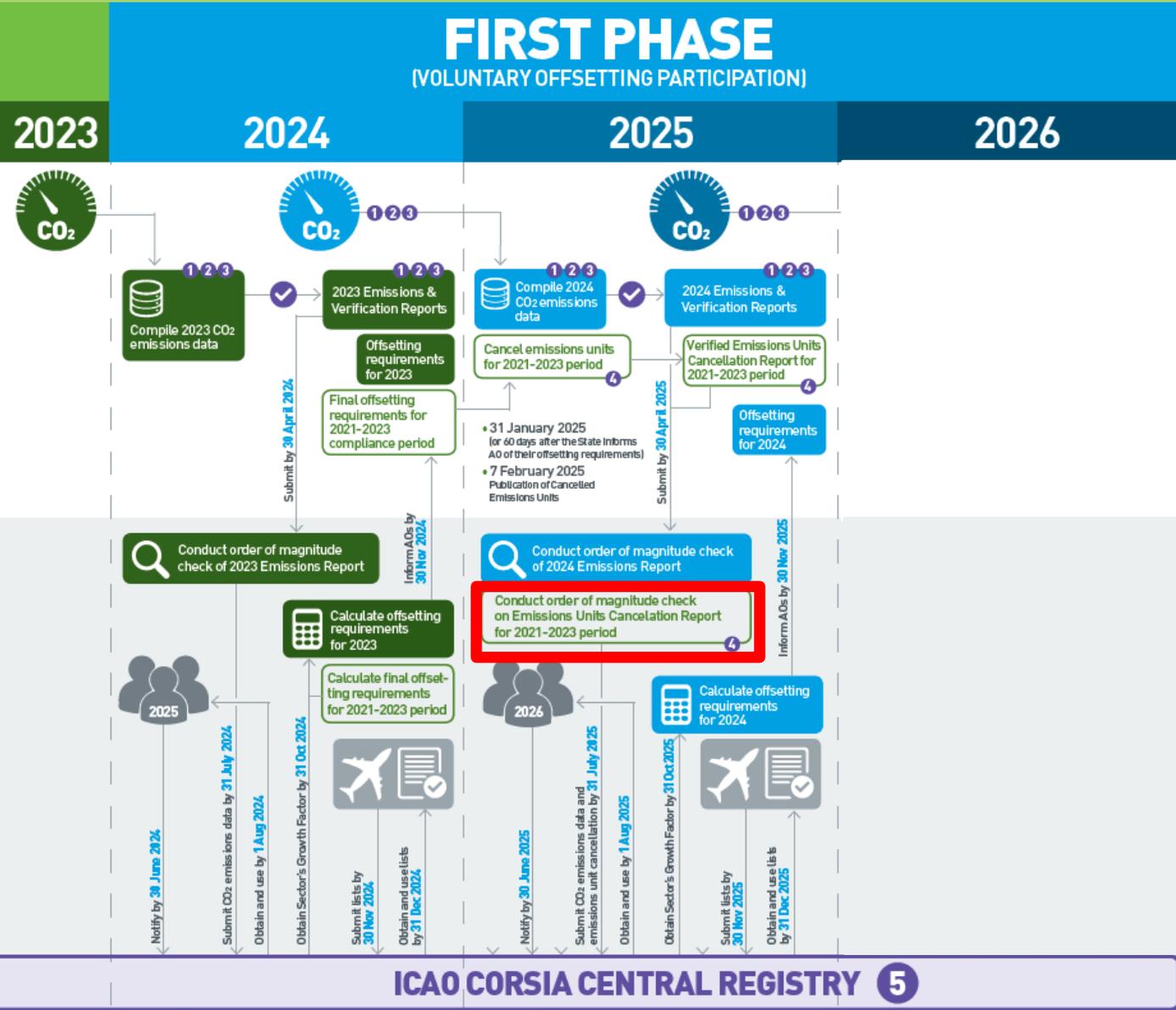
**Cancel emissions units for 2021-2023 period** 4

Generate & Verify:  
In addition to generating emission and verification reports for 2024, aeroplane operator emissions units cancellation report for the 2021-2023 compliance period is generated and verified

**Verified Emissions Units Cancellation Report for 2021-2023 period**

Submit:  
– Submit by **30 April 2025.**

**Conduct order of magnitude check on Emissions Unit Cancellation Report**

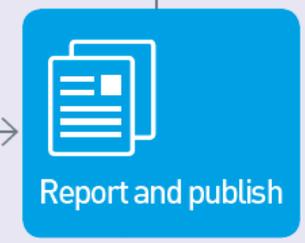
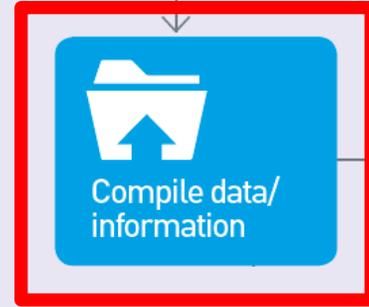


**Conduct order of magnitude check on Emissions Unit Cancellation Report**

Submit:

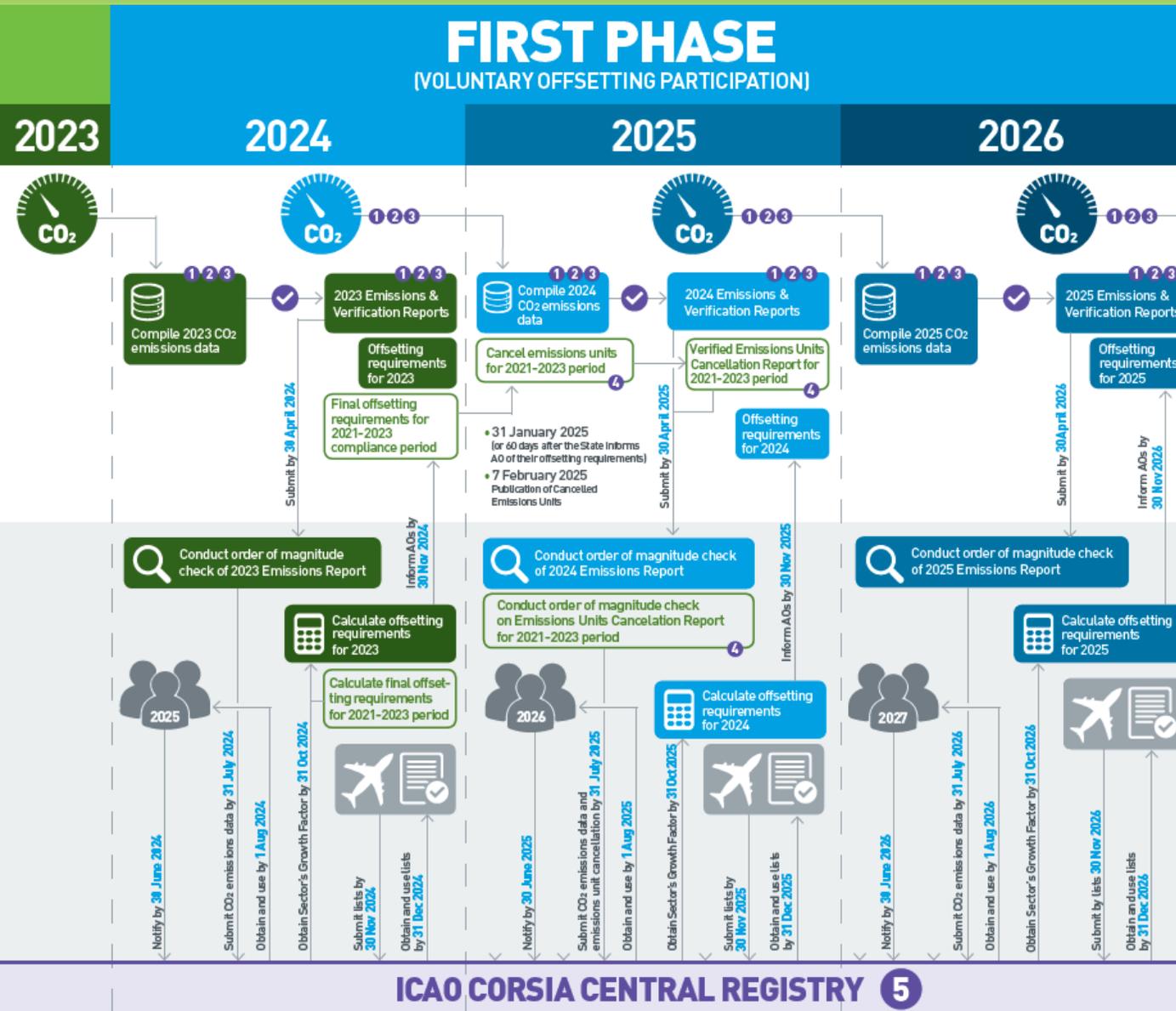
– Submit by **31 July 2025**.

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Report:

– ICAO reports a compiled list of cancelled emissions units.



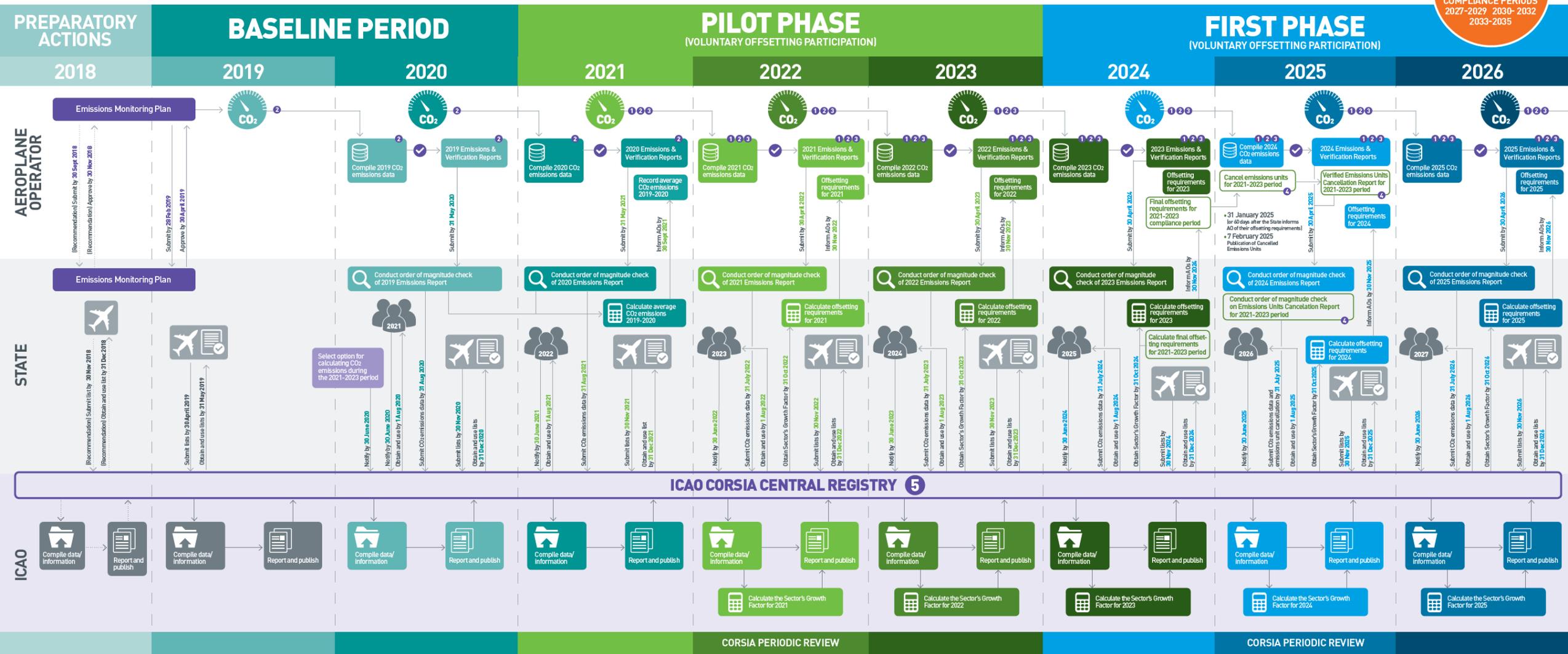
## Repeat:

- The steps for **2026** and the subsequent years, follow the same sequence and timing as previous years in the first phase.
- Steps related to the following actions only occur once per compliance cycle, every three years:
  - Total final offsetting requirements calculations;
  - Cancelling emissions units;
  - Emissions Units Cancellation Report.



## CORSIA PHASED IMPLEMENTATION DIAGRAM

**SECOND PHASE**  
COMPLIANCE PERIODS  
2027-2029 2030-2032  
2033-2035





# Questions?



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ENVIRONMENT



ICAO

North American  
Central American  
and Caribbean  
(NACC) Office  
Mexico City

South American  
(SAM) Office  
Lima

ICAO  
Headquarters  
Montréal

Western and  
Central African  
(WACAF) Office  
Dakar

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Middle East  
(MID) Office  
Cairo

Eastern and  
Southern African  
(ESAF) Office  
Nairobi

Asia and Pacific  
(APAC) Sub-office  
Beijing

Asia and Pacific  
(APAC) Office  
Bangkok



[www.icao.int/corsia](http://www.icao.int/corsia)

THANK YOU

