



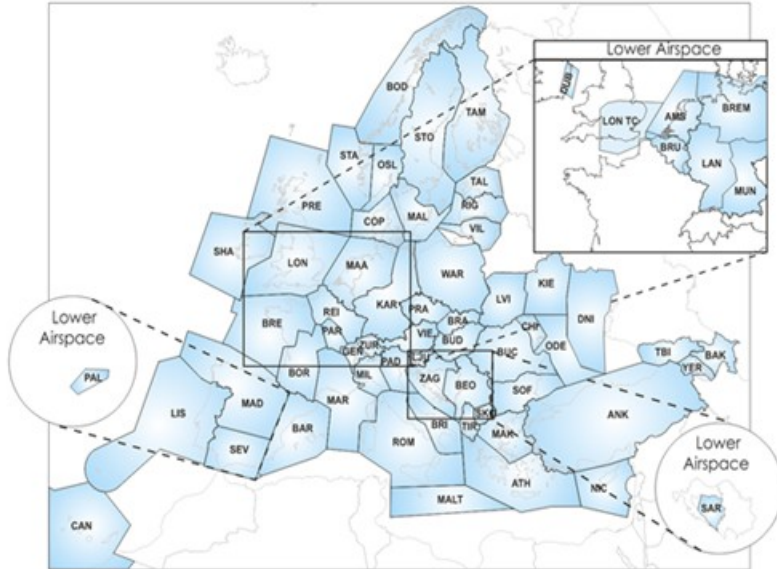
Second Arab Forum for Environmental Protection in the Arab Civil Aviation Industry

Marrakech, 26th & 27th February 2024

CORSIA Implementation: Supporting with Data

Rachel BURBIDGE, EUROCONTROL

ICAO: The contracting States recognise that every State has complete and exclusive sovereignty over the airspace above its territory.



EUROCONTROL

- 41 Member States, typically each with its own ANSP
- Approximately 64 Area Control Centres (ACC)
- Over 700 sectors when at full capacity
- Approx. 17,000 Air Traffic Controllers
- 14.2 million flight hours controlled



CORSIA

- **First single industry sector global market-based measure in the field of climate action**
- **Forecast to mitigate around 2.5 billion tonnes of CO₂ between 2021 and 2035**
- **Started on 1st January 2019 (baseline period)**
- **Objective: carbon neutral growth from 2020**
- **Emissions above 2020 levels will be offset through the acquisition and redemption of emissions units reduction generated outside of the international aviation sector**



A phased approach

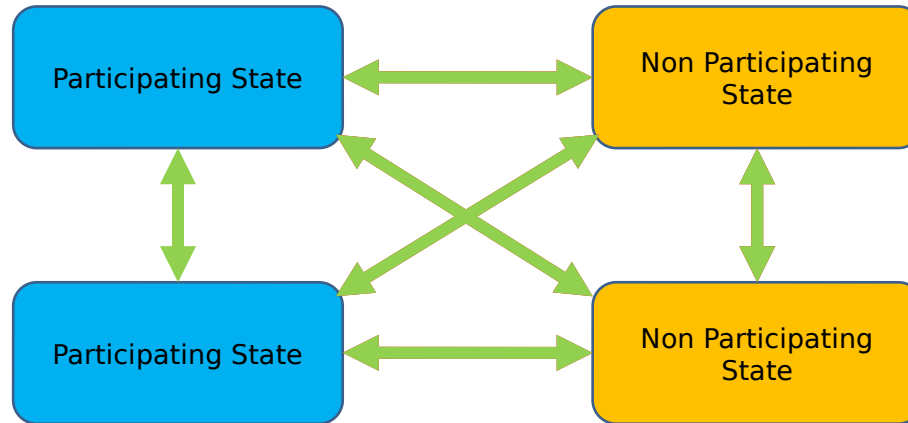


- Participation of States in the pilot phase (2021 to 2023) and first phase (2024 to 2026) is voluntary.
- For the second phase from 2027, all States with an individual share of international aviation activity in year 2018 above 0.5% of total activity or whose cumulative share reaches 90% of total activity, are included. Least Developed Countries, Small Island Developing States and Landlocked Developing Countries are exempt unless they volunteer to participate.

(Source ICAO)

As of 1st January 2024, **126 States** intend to voluntarily participate in CORSIA from its outset.

Fuel consumed on ALL international civil aviation flights must be monitored



- A route will be covered by the scheme if both States connecting the route are participating in the scheme;
- A route will not be covered by the scheme if one or both of States connecting the route are not participating in the scheme



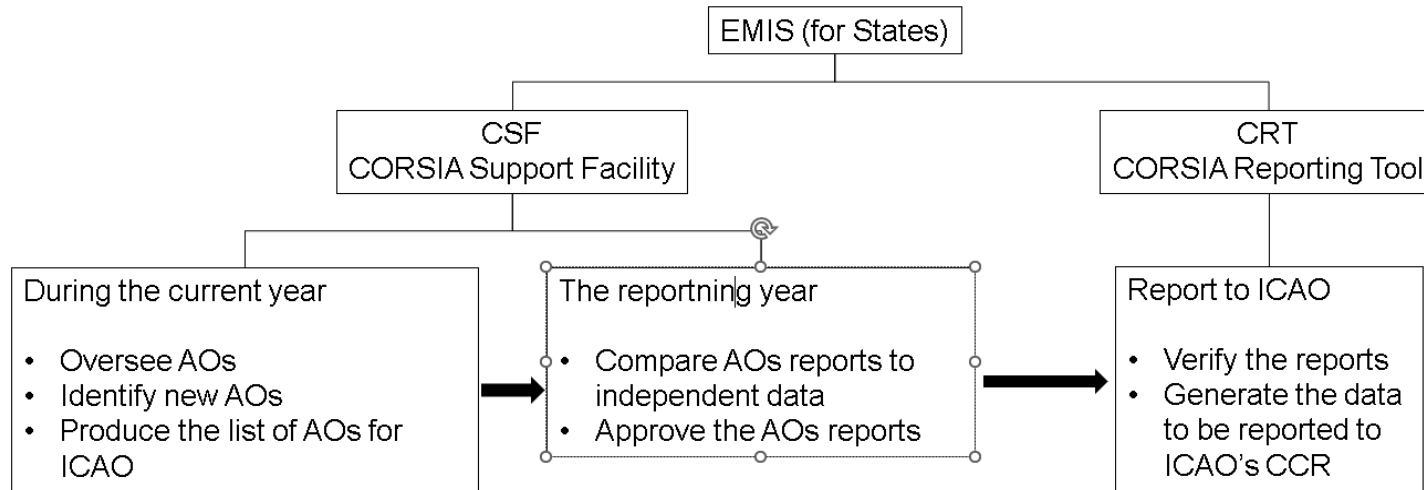
CORSIA - based on data



Departure		Arrival		CO ₂ emissions estimated with CERT?	Total No. of flights	Fuel type (%)	Total amount of fuel used (in tonnes)	Fuel conversion factors	CO ₂ emissions (in tonnes)	Subject to offsetting requirements ?
ICAO airport code	State	ICAO airport code	State							
				no						

ICAO airport code	Departure		Arrival	
	State		ICAO airport code	State
PANC	UNITED STATES	EHAM	NETHERLANDS	
LIMC	ITALY	PANC	NETHERLANDS	
RJAA	JAPAN	WSSS	UNITED STATES	
LIMC	ITALY	RJAA	SINGAPORE	
EHAM	NETHERLANDS	LIMC	JAPAN	
WSSS	SINGAPORE	VTBS	ITALY	
WSSS	SINGAPORE	VHHH	THAILAND	
RJAA	JAPAN	EHAM	CHINA	
EHAM	NETHERLANDS	PANC	NETHERLANDS	
WSSS	SINGAPORE	RJGG	UNITED STATES	
HDAM	NETHERLANDS	RJAA	JAPAN	
WSSS	DJIBOUTI	WSSS	JAPAN	
WSSS	SINGAPORE	HDAM	SINGAPORE	
RJGG	SINGAPORE	RJAA	DJIBOUTI	
EHAM	JAPAN	WSSS	JAPAN	
	NETHERLANDS	LIRF	SINGAPORE	
			ITALY	

EMIS – Supporting States in managing AOs under MBMs



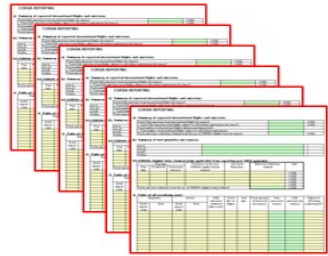
Data exchanges between States supports these processes



EUROCONTROL CRT



EMIS CRT Workflow



Load AOs
emissions
reports

- Verification of syntactical correctness
- OOMC checks

No errors: aggregate & generate the CORSIA reports for ICAO's CCR

Errors identified

State coordinates back with AO

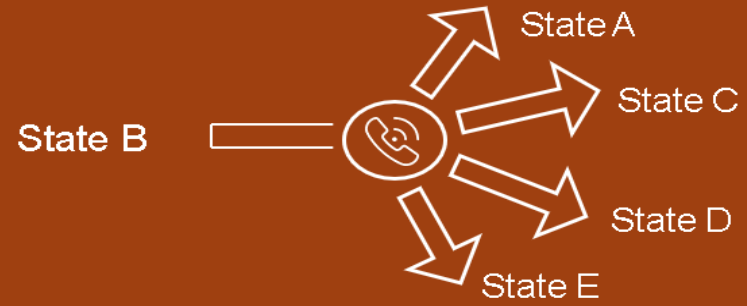
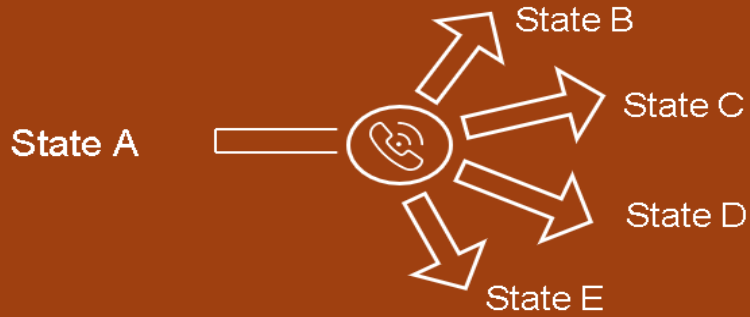
From	To	CO2 Emissions (tonnes of CO2)	Confidential Data
ITALY	GREECE	34853.44	FALSE
GREECE	CROATIA	1956.38	FALSE
CZECHIA	GREECE	5321.39	FALSE
GREECE	AZERBAIJAN	24.97	FALSE
ROMANIA	MONTENEGRO	9.15	FALSE
GREECE	IRELAND	2428.98	FALSE
ISRAEL	GREECE	16088.01	FALSE
SWEDEN	NORWAY	85.59	FALSE
GREECE	NORWAY	5846.27	FALSE
ROMANIA	SERBIA	4.06	FALSE
UNITED KINGDOM	SERBIA	27.95	FALSE
SLOVAKIA	CYPRUS	44.18	FALSE
GREECE	BELGIUM	21616.68	FALSE
GREECE	GEORGIA	3035.39	FALSE
GREECE	LEBANON	2897.72	FALSE
GREECE	NORTH MACEDONIA	310.33	FALSE
CYPRUS	ISRAEL	56.32	FALSE
UNITED KINGDOM	SWITZERLAND	14.15	FALSE
ARMENIA	GREECE	6088.29	FALSE
SWEDEN	GREECE	11248.95	FALSE
TURKEY	GREECE	6939.45	FALSE
RUSSIAN FEDERATION	GREECE	1193.75	FALSE
BULGARIA	GREECE	3224.26	FALSE
CYPRUS	AUSTRIA	6.20	FALSE



Bilateral data Exchange



Data Exchange between States *Individual bilateral agreements*



Each State collects all traffic through bilateral data exchange agreements with the States in which all the AOs it manages operate.



The State then processes all the data and executes a decoupling mechanism to consolidate traffic for each AO, filtering out duplicates and corrupted information.

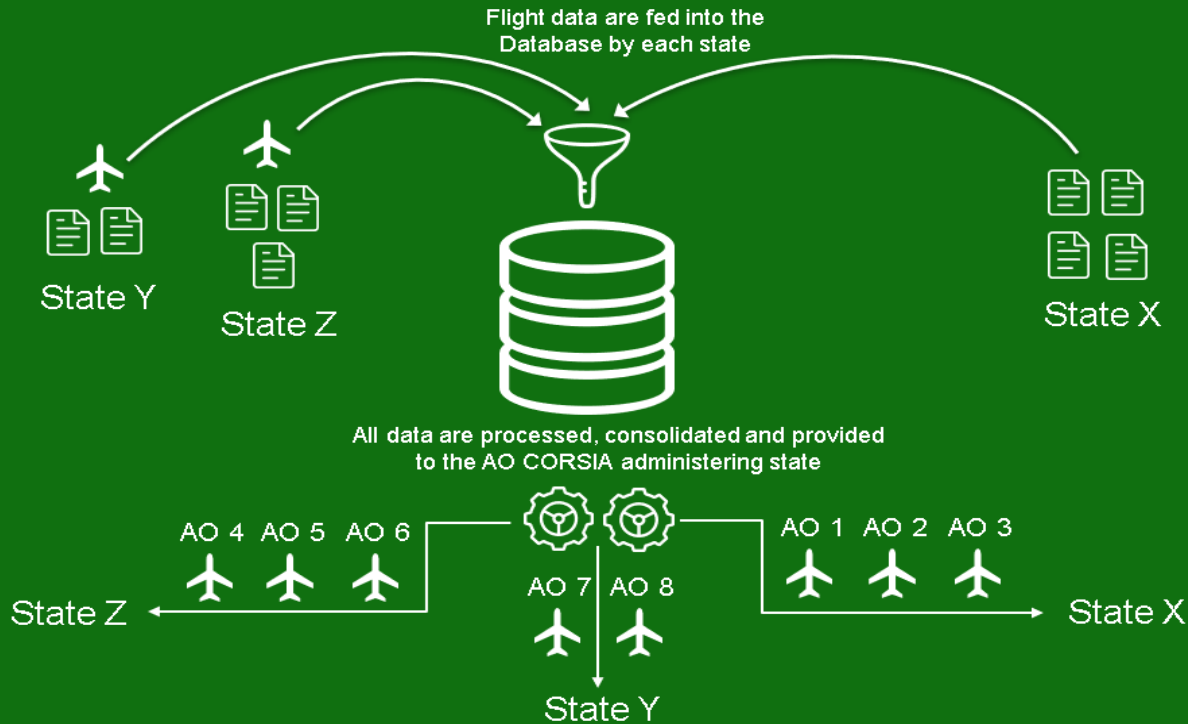


Central Data Exchange



Flight Data Exchange between States

Collegial approach emulating a multilateral agreement





Data Exchange in Practice



Flight Data Exchange between States

Collegial approach emulating a multilateral agreement

- **Each State signs a single bilateral agreement with EUROCONTROL**
 - Committing to provide data in a single common “container” managed by EUROCONTROL
 - Agreeing this data to be made available to other such states on a “need to know for CORSIA” basis
 - Entitling it to have access to data of other providing states on a “need to know for CORSIA” basis
 - EUROCONTROL engages on the same basis for the data it holds for its Member States
- **Economies of scale in data processing**
- **Data exchange is free of charge for EUROCONTROL and the State, each covers its own costs**
- **In force with Singapore CAA**



THANK YOU



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