

Supporting  
European  
Aviation



# EUROPEAN AVIATION, COVID and the RECOVERY

*ICAO ANC TALK*

Eamonn Brennan  
Director General

8 June 2020



## European Aviation



## Key Facts - European Aviation



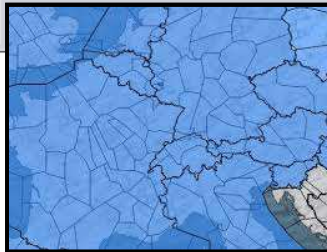
### Airlines

- Profits high – for just a few airlines



### Airspace

- Fragmented



### Infrastructure

- Very few new runways



## Key Facts - European Aviation



### Value

- 12.2m jobs
- €750m to GDP



### Environment

- Flygskam
- Investors now interested



### Demographics

- Aging population (Vs Asia)

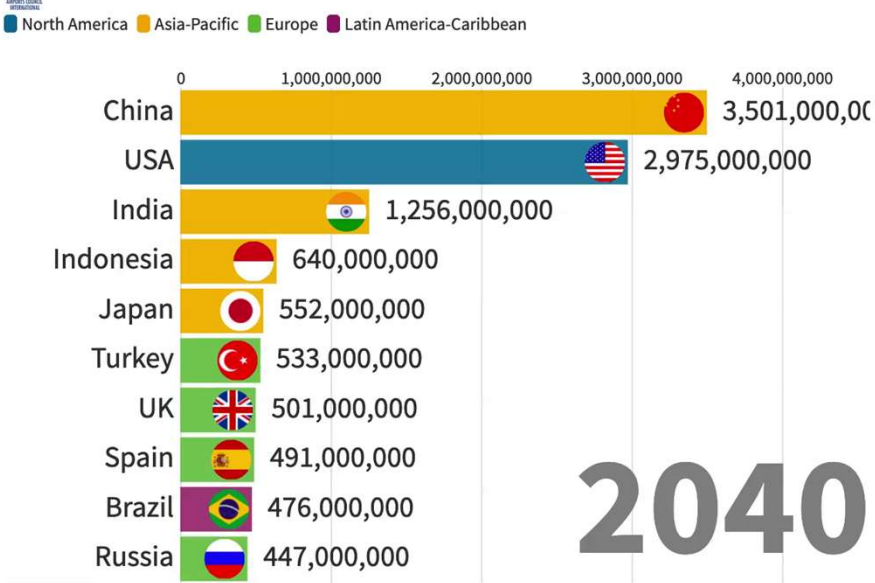


# Top-10 European Airlines 2019 - Passengers



TOP-10 EUROPEAN AIRLINES (PASSENGERS) 2019		
SOURCE: CAPA		
Airline (groups)	Million Passengers	Change vs. 2018
Ryanair	152	+9.5%
Lufthansa	145	+2.3%
IAG	118	+4.7%
Air France-KLM	104	+2.7%
easyJet	97	+5.9%
Turkish	74	-1.1%
Aeroflot	61	9.2%
Wizz Air	40	+17.7%
Norwegian	36	-2.8%
Pegasus	30	-0.3%

## Top 10 largest passenger markets across time (2010-2040)

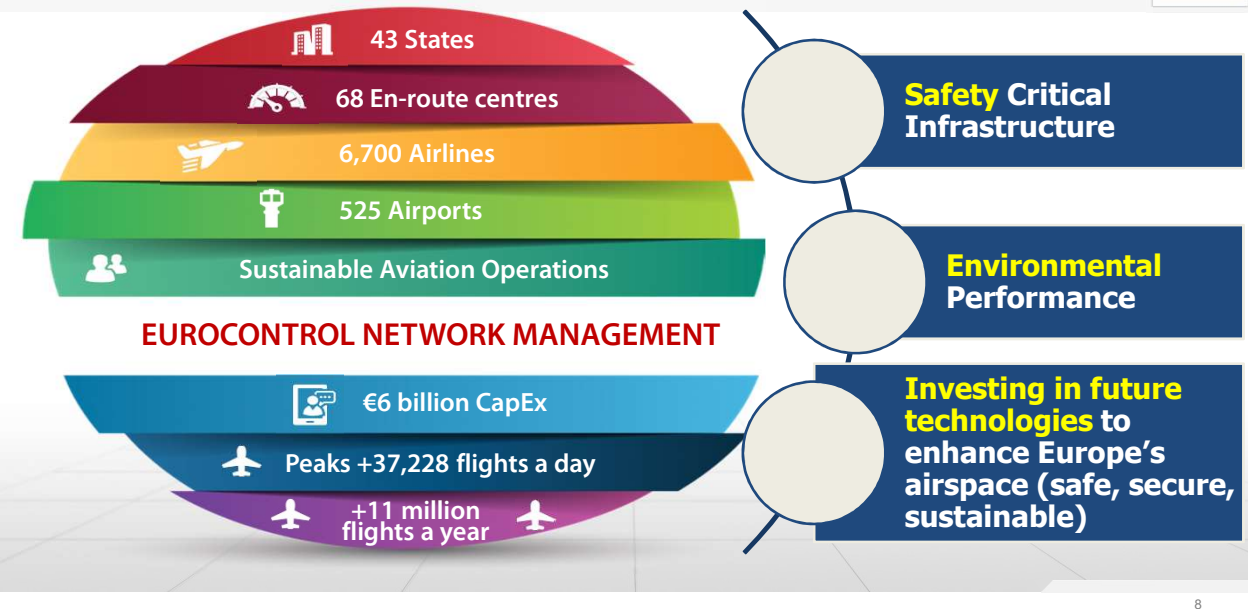


2040

Source: Airports Council International • Data was extracted from the 2019 ACI datasets



# Air Traffic Management in Europe



# Europe's Airspace Is Inefficient



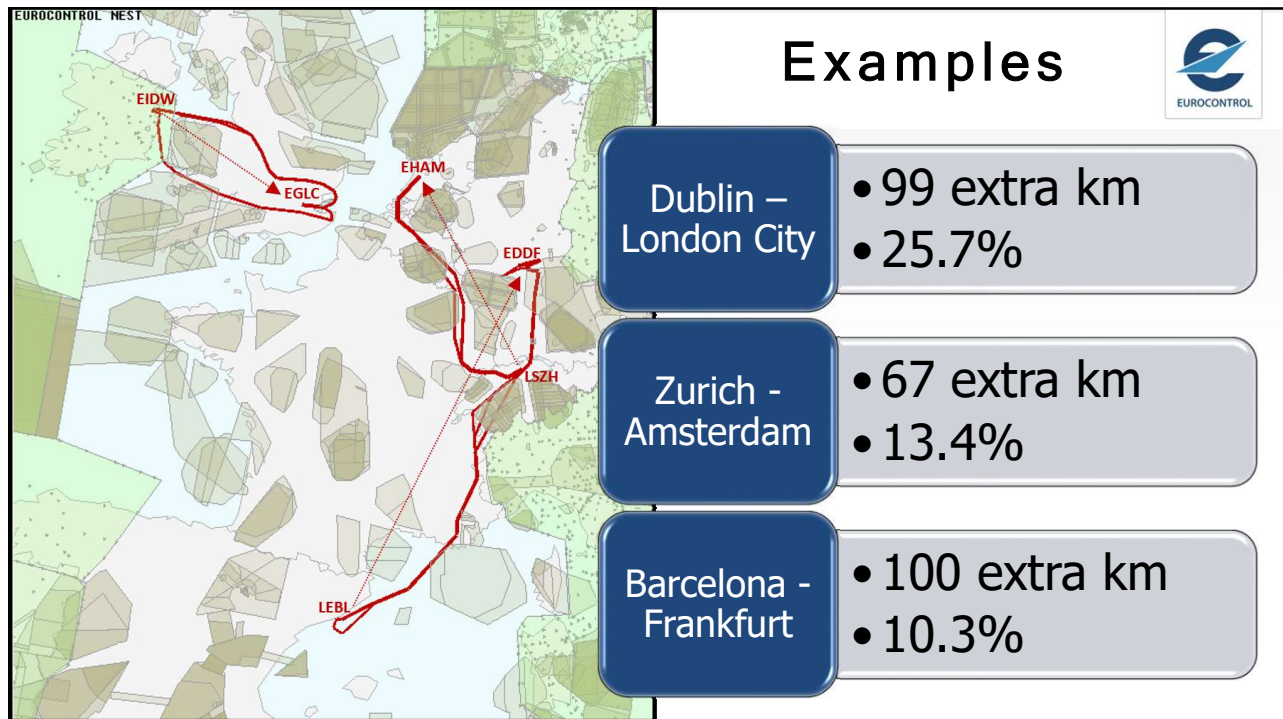
**European  
Airspace is  
fragmented**

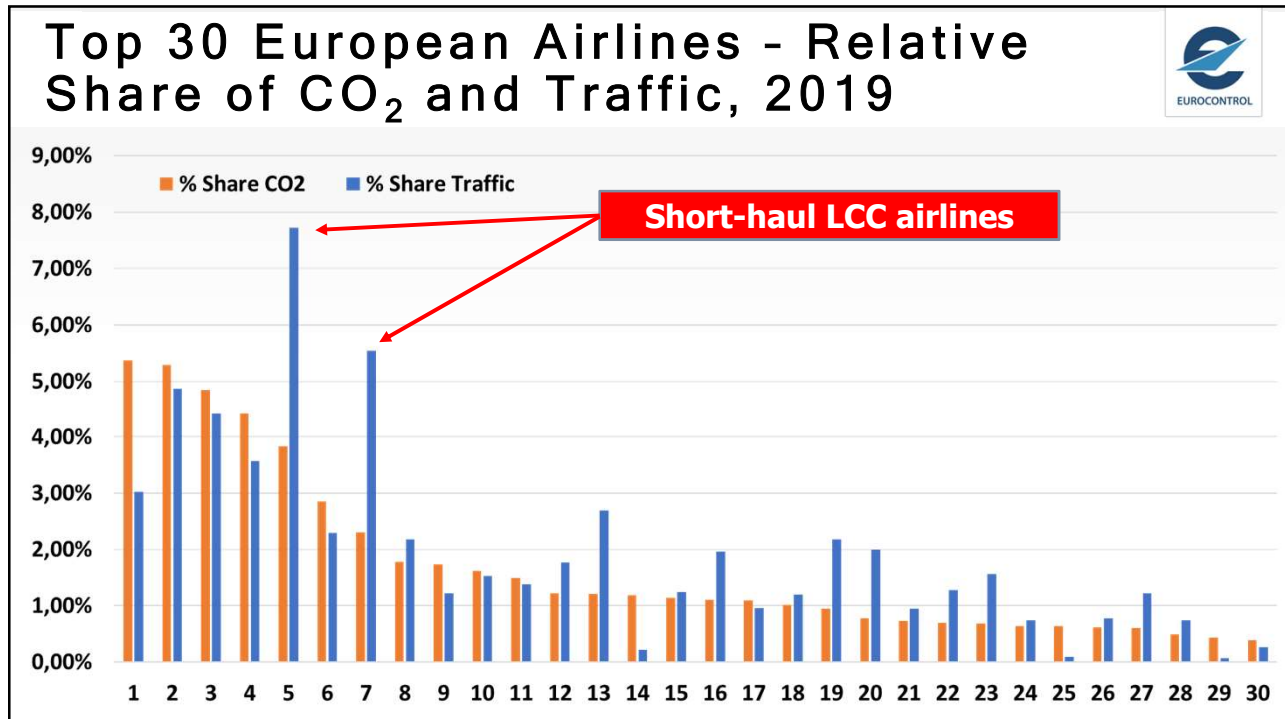
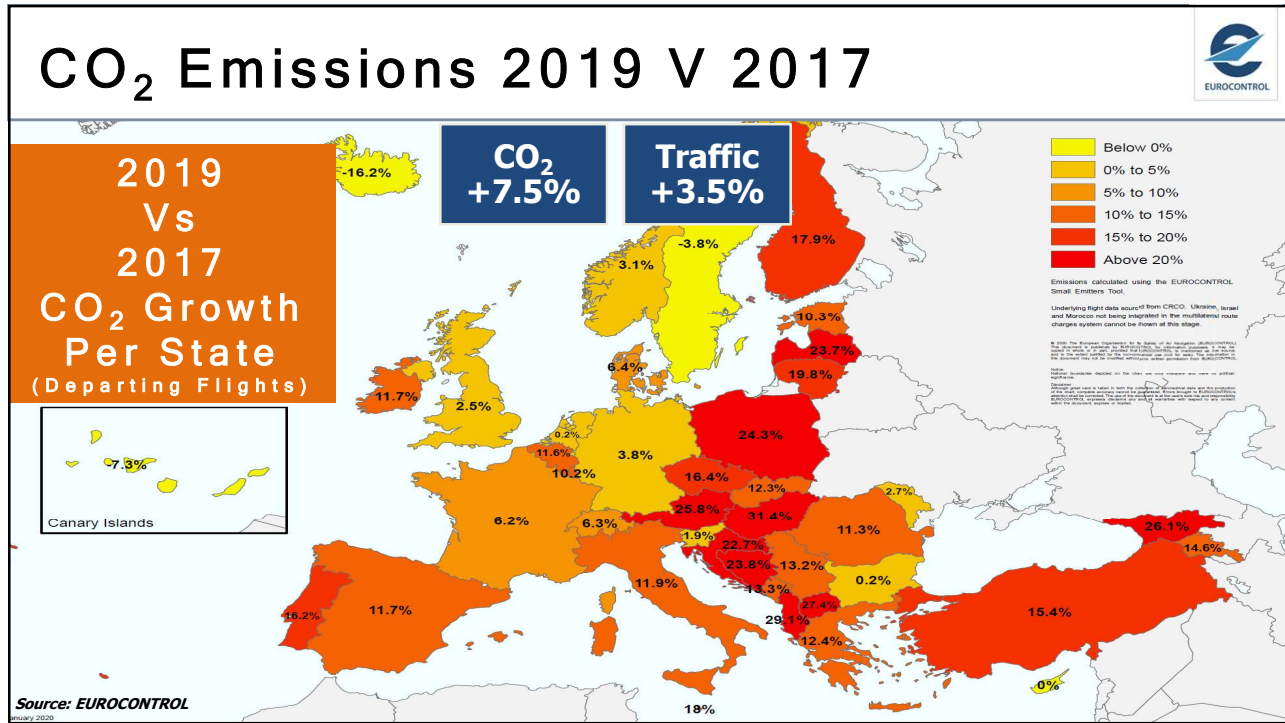
**Lack of real network**

**Longer/Lower Routings**

**ATC Bottlenecks**

**Staffing & Capacity**





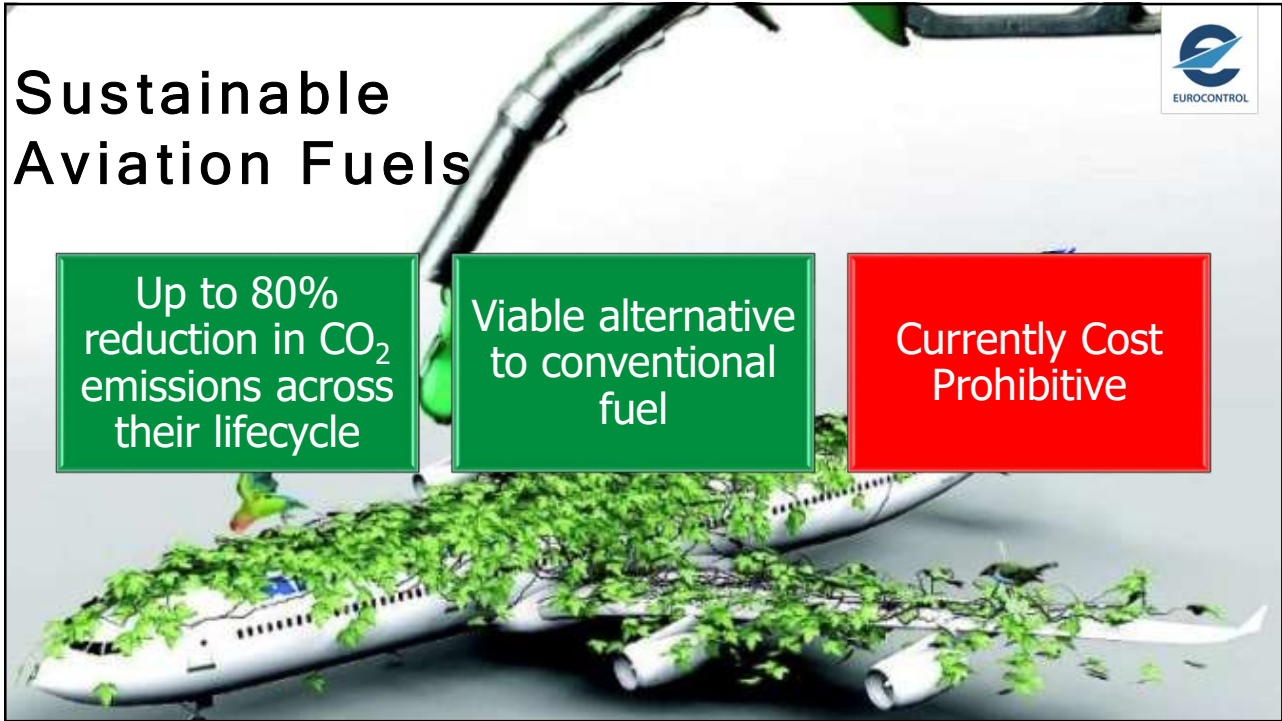
# Sustainable Aviation Fuels



Up to 80% reduction in CO<sub>2</sub> emissions across their lifecycle






Viable alternative to conventional fuel

Currently Cost Prohibitive



# Decarbonisation: Top 5 Options



- 1  Change the European Network
- 2  Fund transition to Sustainable Aviation Fuels
- 3  Develop highly-efficient, large-capacity, short-haul aircraft
- 4  Undertake a total fleet renewal by 2050
- 5  Hybridisation, acting as a bridge to electrification of the fleet, especially short-haul aircraft





**EUROCONTROL**  
**International Organisation**  
**41 x Member States**  
**+ Morocco and Israel**



**EUROCONTROL Office Locations:**

-  **BELGIUM**  
Brussels (HQ & ATM Network)
-  **NETHERLANDS**  
Maastricht (MUAC ANSP)
-  **FRANCE**  
Brétigny-sur-Orge (Research Centre)
-  **LUXEMBOURG**  
Luxembourg (Training Centre)





# EUROCONTROL's CENTRAL ROLE For European Aviation

Air Traffic Network Manager for all of Europe  
+11 million flights in 2019

ATC Financing - €9 billion p.a.

Maastricht Air Navigation Service Provider

Civil-Military coordination

Air Traffic Expert support to EU bodies

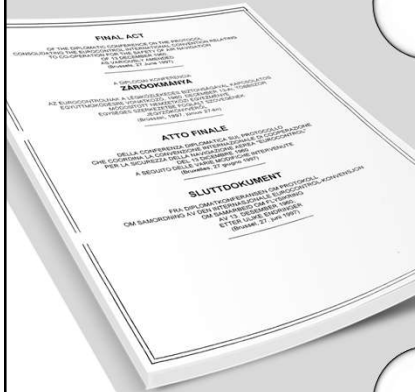
Pan-European



## Coordination With Our Partners



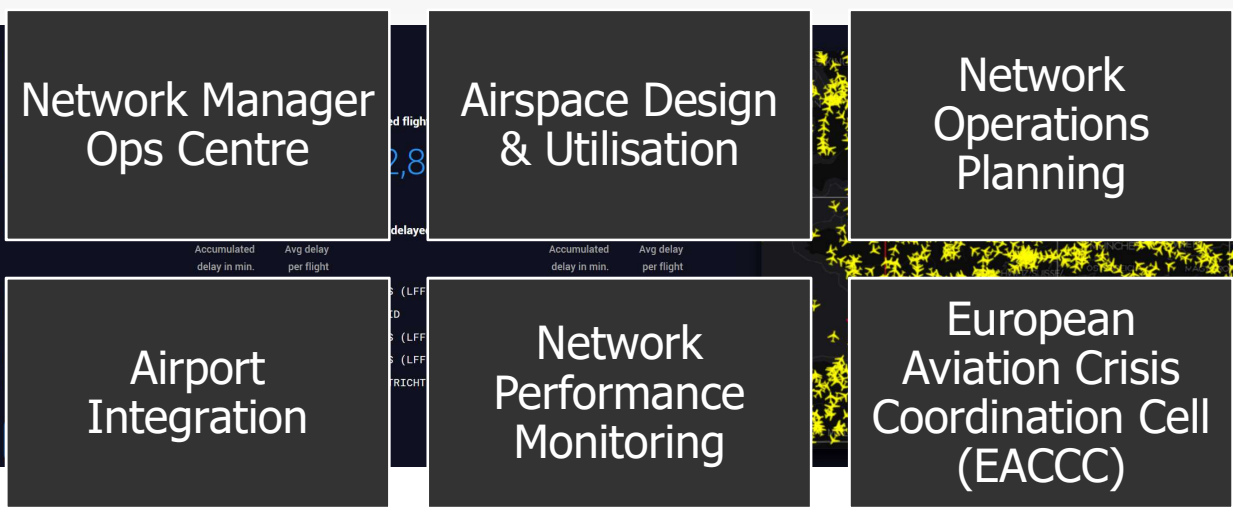
# EUROCONTROL Legal Framework

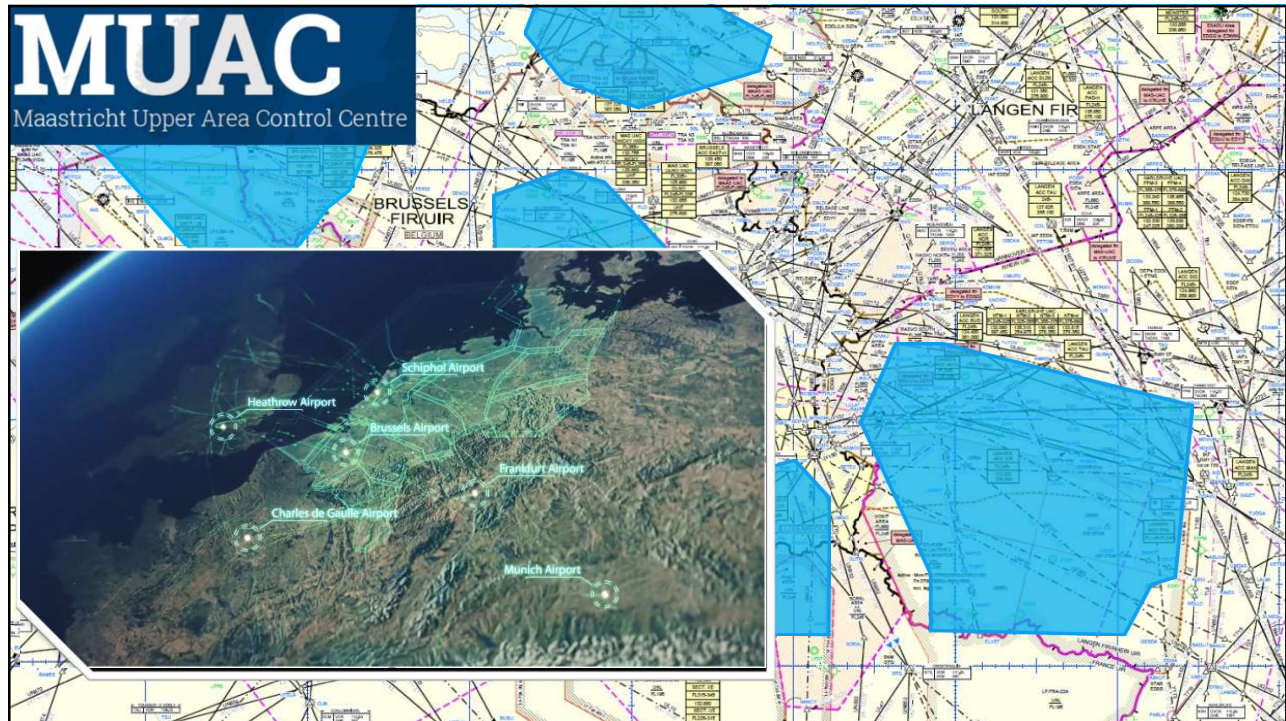


- 
**EUROCONTROL Convention 1960 (Amended 1981)**
- 
**Multilateral Agreement relating to Route Charges 1981**
- 
**Revised Convention 1997**  
 - Not yet in force
- 
**EU Accession Protocol 2002**  
 - Not yet in force



# EUROCONTROL Network Manager





## R&D at Brétigny



**SESAR Contribution**

**Network  
Management**


**ATS & RPAS**

**Airports**

**Digitalisation**

**Simulations**

## Technical support provided to States & Industry



France –  
Validation  
Exercices at Paris  
CDG

Ireland - Human  
Factors in Dublin  
Airport operations

United Kingdom  
CAA – Analysis of  
Delays


Spain - Barcelona  
Airport

Switzerland -  
Zurich Airport  
simulation


Turkey - DHMI  
Simulations

Standardisation  
Stakeholders  
workshop

Israel/Cyprus –  
Simulations



## ATC En route Route Charges System

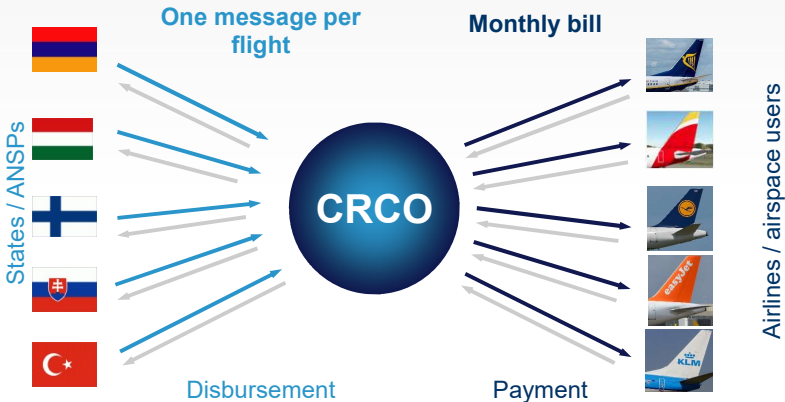


**Cost €8 billion  
per year**

**Paid for by  
Airlines as  
Route Charges**

**Managed by  
EUROCONTROL  
Central Route Charges  
Office (CRCO)**


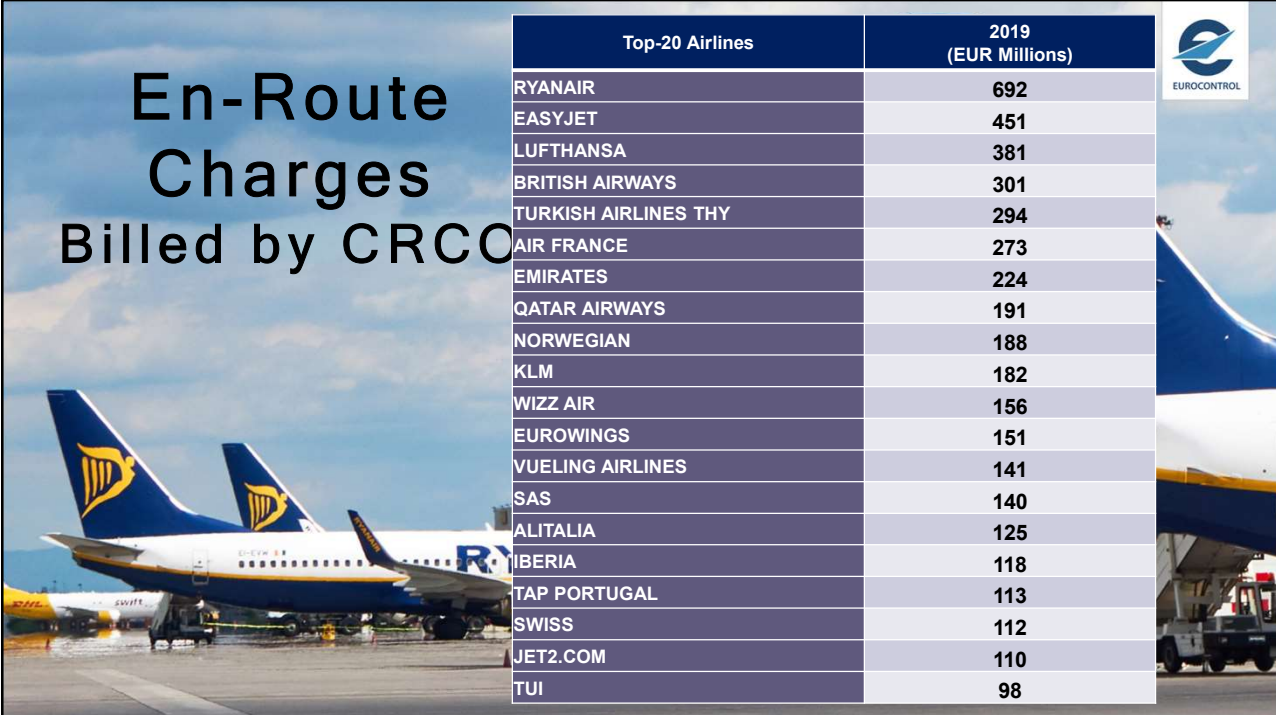
**99.8% Recovery  
Rate**



The diagram illustrates the flow of route charges. On the left, 'States / ANSPs' (represented by flags of Romania, Hungary, Finland, Slovakia, and Turkey) send 'One message per flight' to the central 'CRCO' (Central Route Charges Office). From CRCO, 'Disbursement' occurs back to the States/ANSPs. On the right, 'Airlines / airspace users' (represented by logos of Air France, Ryanair, British Airways, and KLM) send 'Payment' to CRCO, which then issues a 'Monthly bill' to them.

# En-Route Charges Billed by CRCO

Top-20 Airlines	2019 (EUR Millions)
RYANAIR	692
EASYJET	451
LUFTHANSA	381
BRITISH AIRWAYS	301
TURKISH AIRLINES THY	294
AIR FRANCE	273
EMIRATES	224
QATAR AIRWAYS	191
NORWEGIAN	188
KLM	182
WIZZ AIR	156
EUROWINGS	151
VUELING AIRLINES	141
SAS	140
ALITALIA	125
IBERIA	118
TAP PORTUGAL	113
SWISS	112
JET2.COM	110
TUI	98

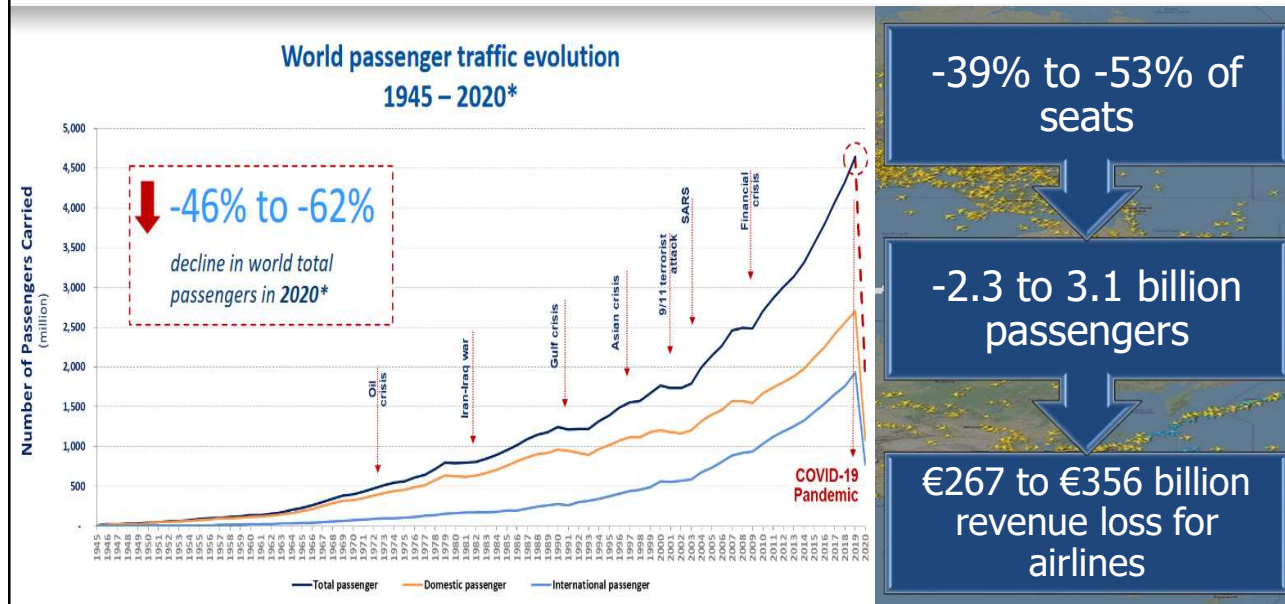



## COVID-19 impact on the Network



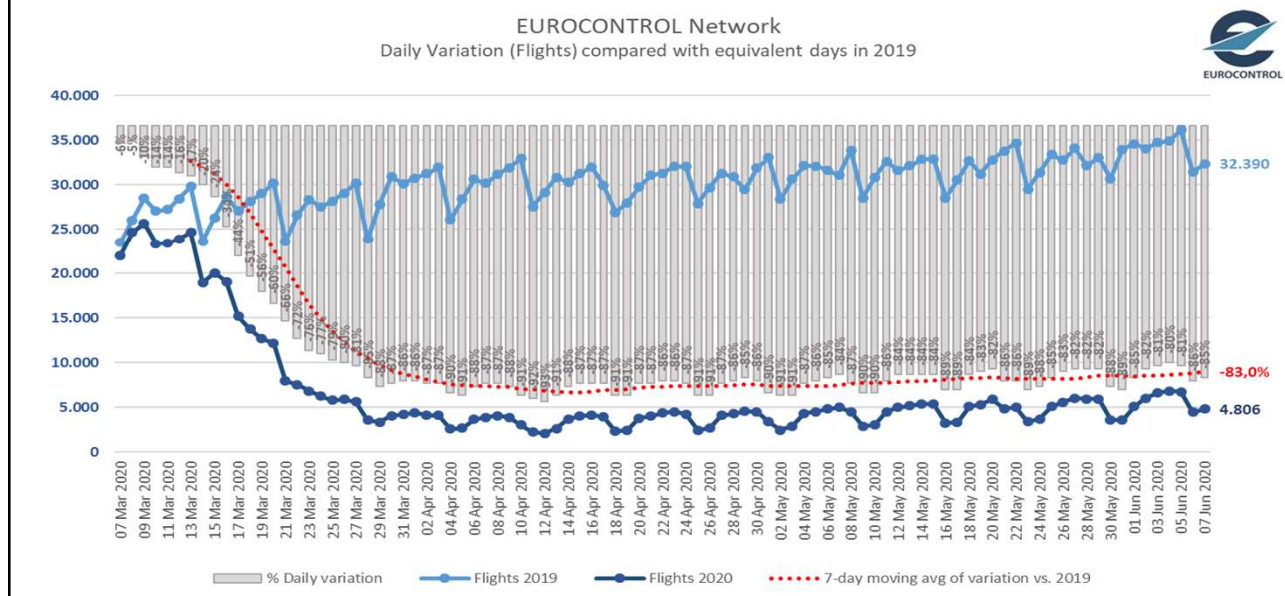
# COVID-19 impact on world air traffic

(ICAO Air Transport Reporting - 5 June 2020)

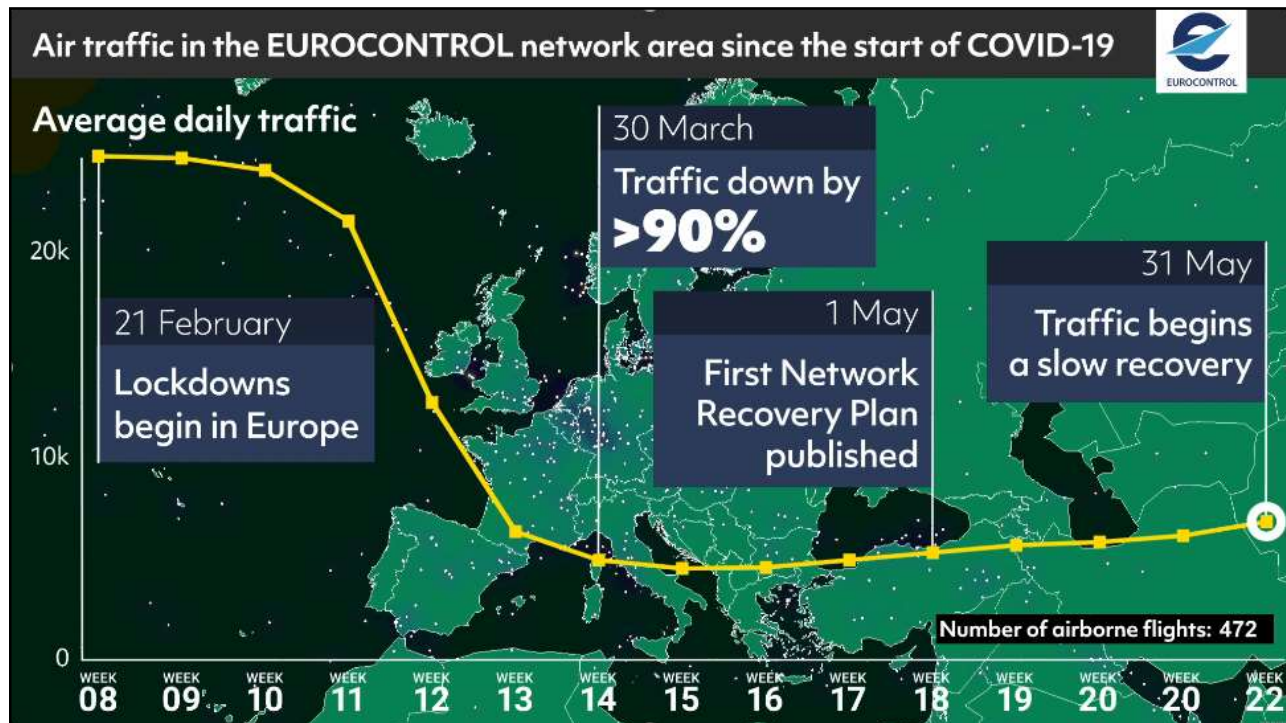
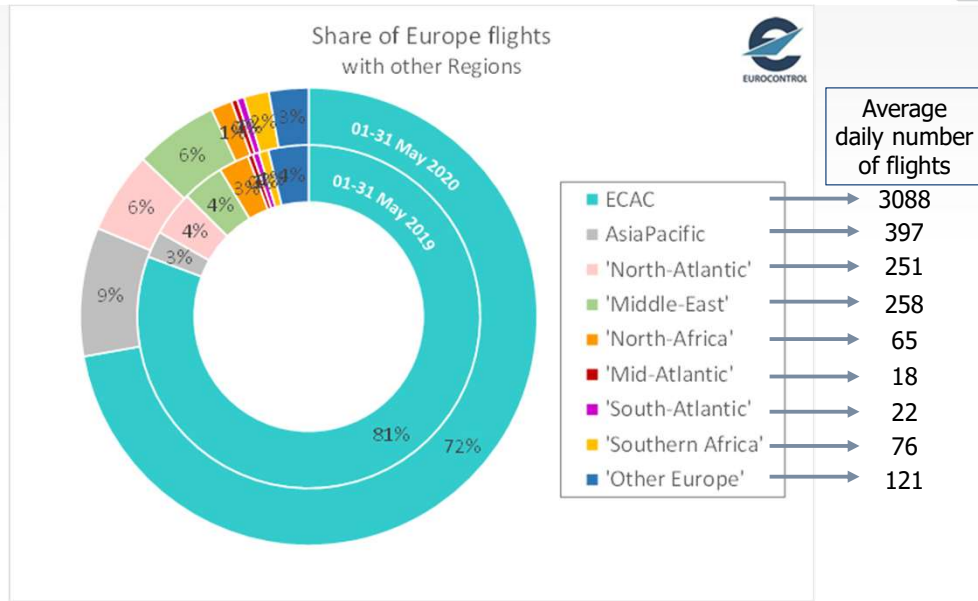


# European Network Traffic

=83% Reduction in European Flights (last 7 days)



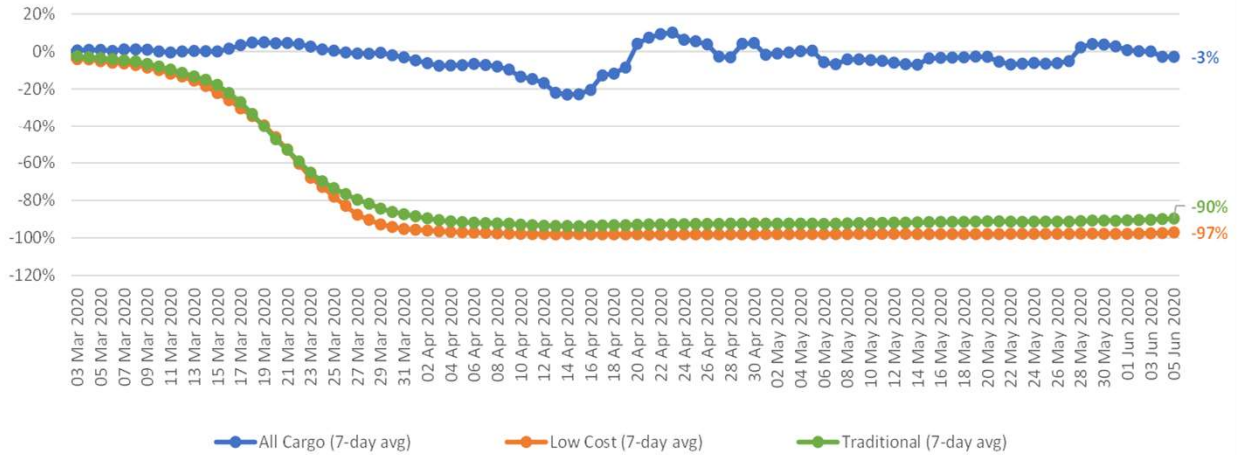
# SHARE of EUROPE FLIGHTS with OTHER REGIONS: May 2020 V May 2019



# Market Segments



Market segments in EUROCONTROL Network  
(compared with equivalent days in 2019)  
Daily Variation (Flights)

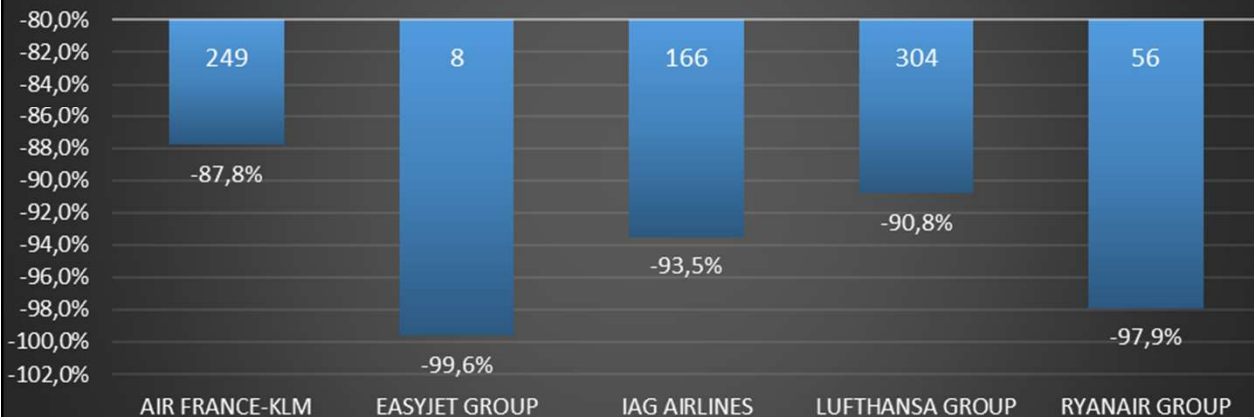


# Airlines



## Air Operator Group | Daily Network Traffic

07-06-2020 compared to the same operational day last year

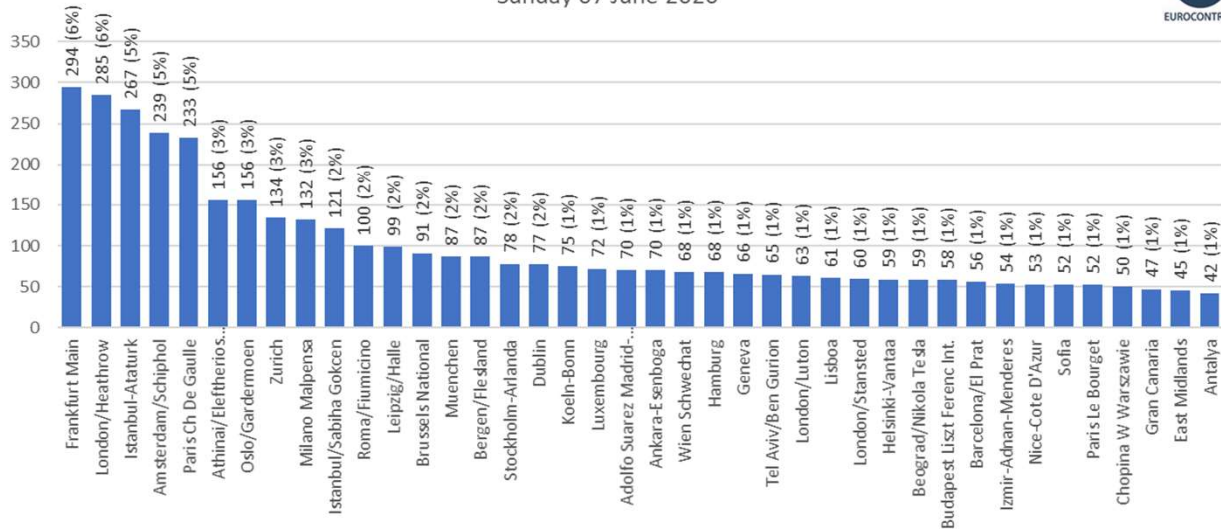




# Airports



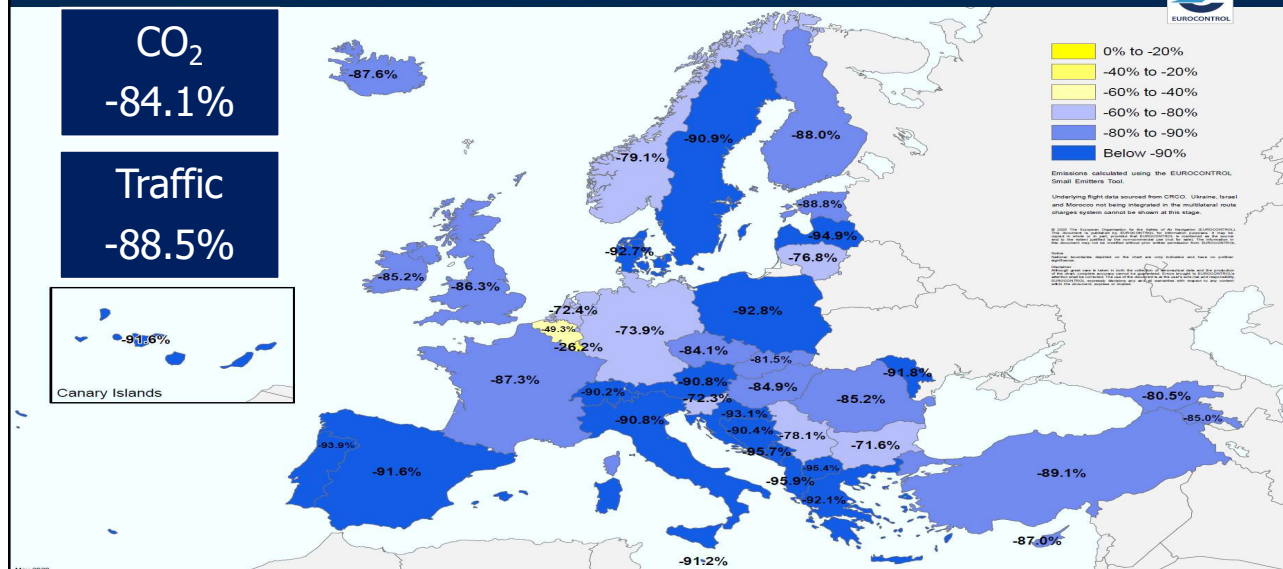
Top 40 Airports (Dep/Arr flights + share)  
Sunday 07 June 2020



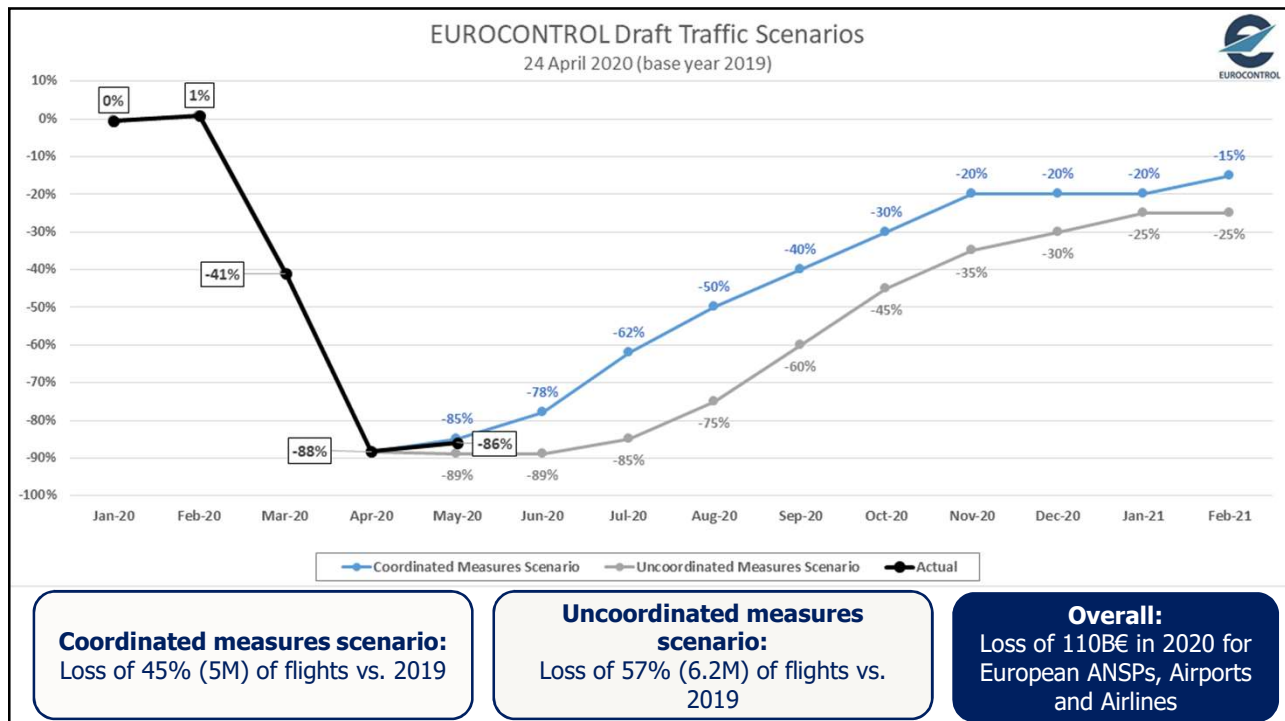
# Environment - April 2020

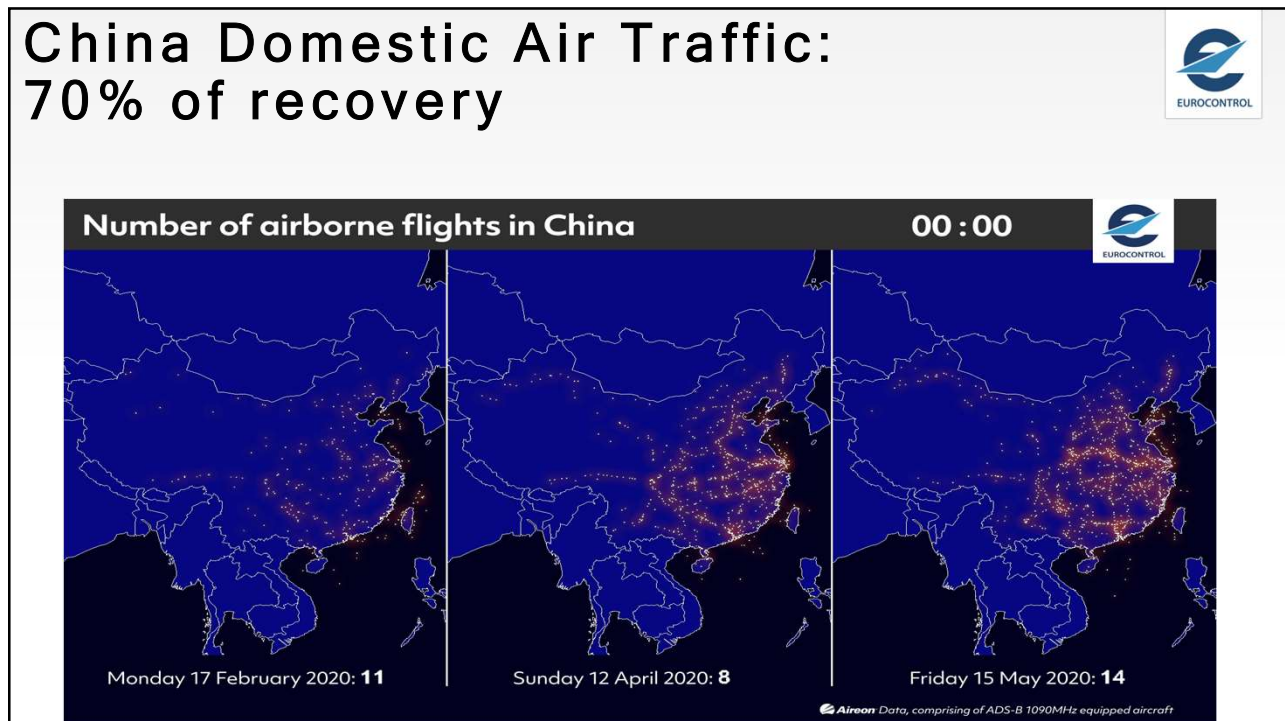
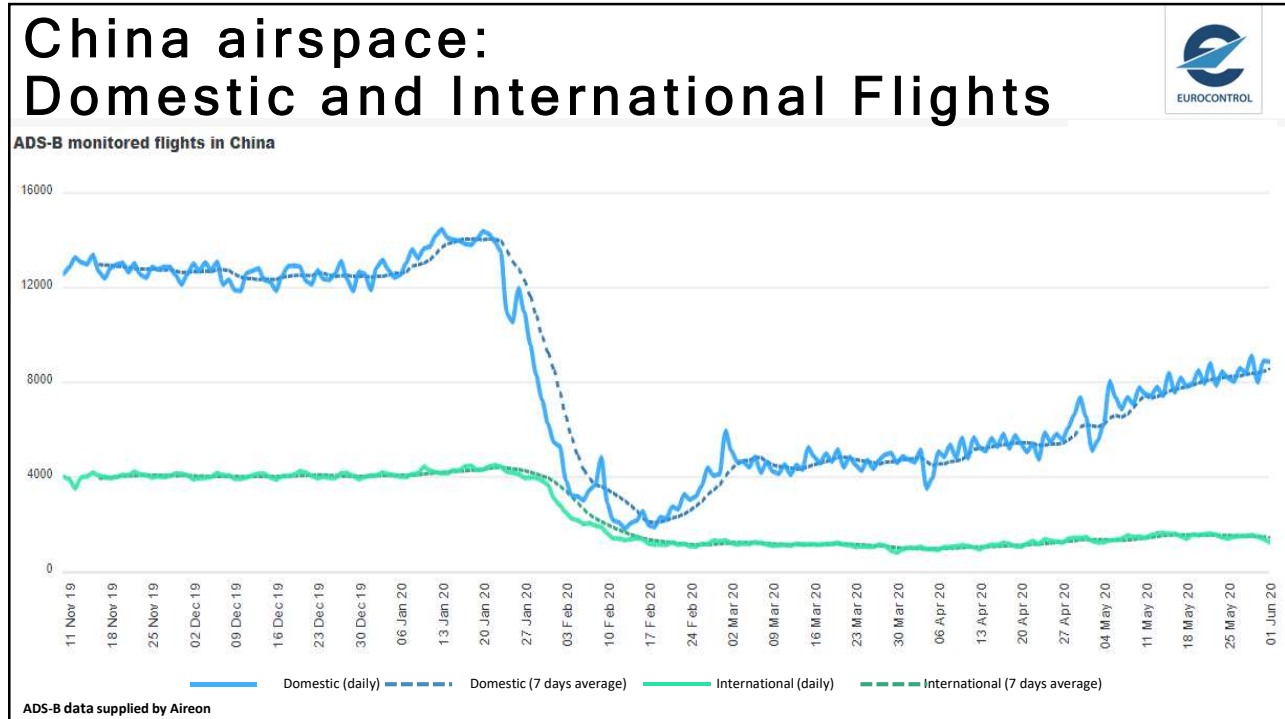


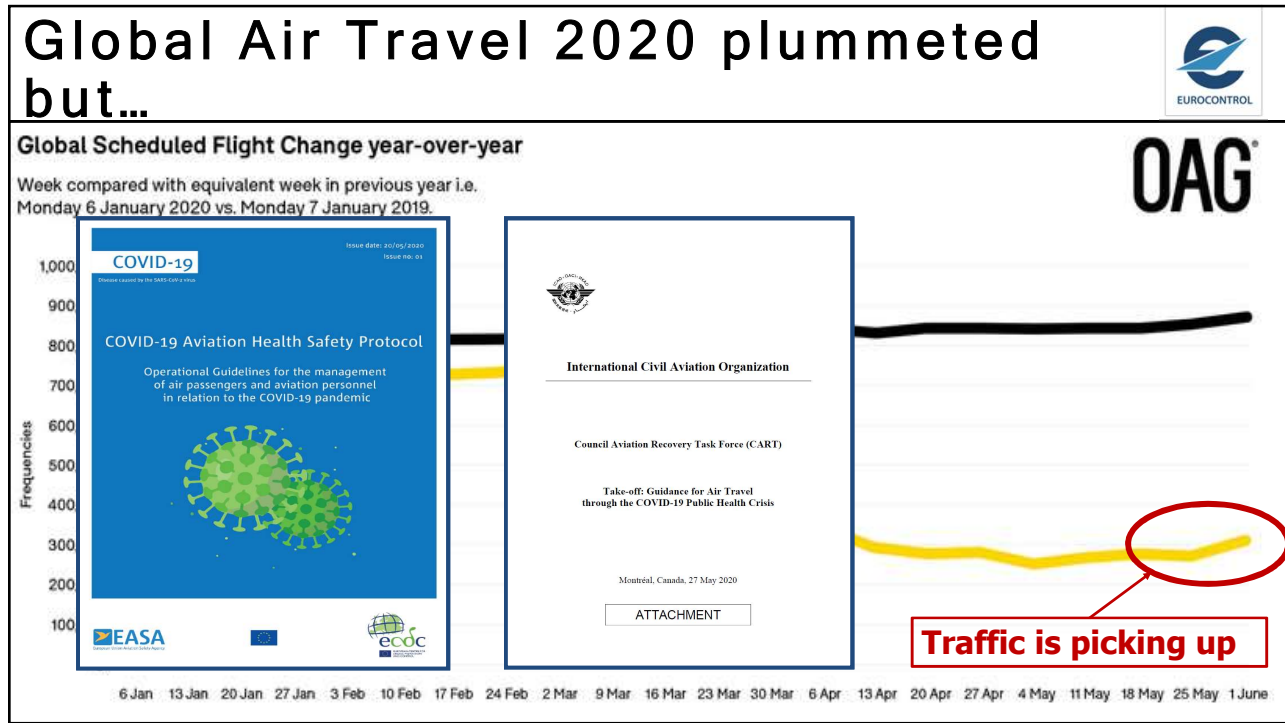
CO<sub>2</sub> Emissions Growth April 2020 vs April 2019 - Departing Flights



# NETWORK OUTLOOK 2020



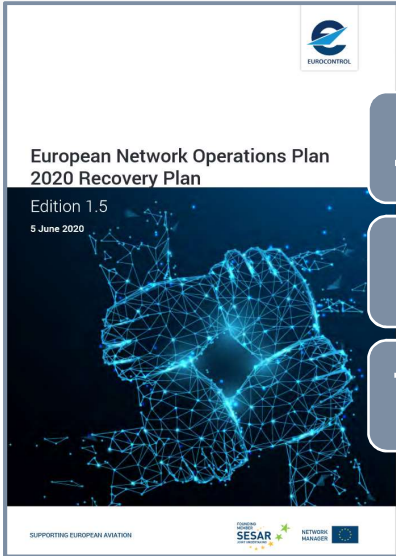


## EUROCONTROL Network Manager Network Operations Recovery Plan

- Covering a rolling four-week period
- Consolidates data from 350 airlines, 68 ACCs, 55 airports and 43 States
- Updated and published on a weekly basis
- Team aviation industry effort

40

# EUROCONTROL Network Manager Network Operations Recovery Plan



5 June Indicators

10,500 Daily Flights: early July

70% down on July 2019

## EUROCONTROL CRISIS MANAGEMENT ACTIVITIES



# EUROCONTROL Network Manager: COVID Actions



## Traffic Reduction Management

- NOTAMs
- Business Continuity Plans
- eNM/2020 cancellation

## European Aviation Crisis Coordination Cell

- EUROCONTROL NM & EU

## Network Operations Recovery Plan

- Weekly coordination

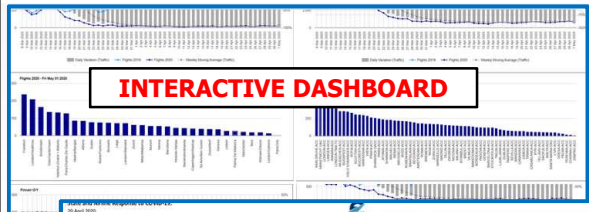
## Cybersecurity

- Monitoring & Detection

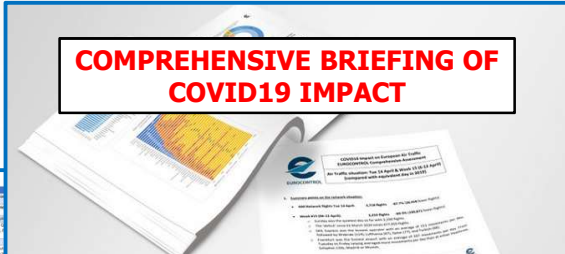
# Provision of Essential Data for Decision-Making



## INTERACTIVE DASHBOARD



## COMPREHENSIVE BRIEFING OF COVID19 IMPACT



## UPDATE ON AIRLINES & STATES MEASURES

Region	Measure	Effective Date
ACAS	ACAS (Australia) - [Detailed measure text]	2020-04-23
AD	AD (Austria) - [Detailed measure text]	2020-04-23
AE	AE (United Arab Emirates) - [Detailed measure text]	2020-04-23
AF	AF (France) - [Detailed measure text]	2020-04-23
AG	AG (Germany) - [Detailed measure text]	2020-04-23
AI	AI (Ireland) - [Detailed measure text]	2020-04-23
AL	AL (Albania) - [Detailed measure text]	2020-04-23
AM	AM (Armenia) - [Detailed measure text]	2020-04-23
AN	AN (Austria) - [Detailed measure text]	2020-04-23
AO	AO (Angola) - [Detailed measure text]	2020-04-23
AR	AR (Argentina) - [Detailed measure text]	2020-04-23
AS	AS (Australia) - [Detailed measure text]	2020-04-23
AT	AT (Austria) - [Detailed measure text]	2020-04-23
AX	AX (Åland Islands) - [Detailed measure text]	2020-04-23
AZ	AZ (Azerbaijan) - [Detailed measure text]	2020-04-23
BA	BA (Bahrain) - [Detailed measure text]	2020-04-23
BB	BB (Barbados) - [Detailed measure text]	2020-04-23
BC	BC (Belize) - [Detailed measure text]	2020-04-23
BD	BD (Bangladesh) - [Detailed measure text]	2020-04-23
BE	BE (Belgium) - [Detailed measure text]	2020-04-23
BF	BF (Burkina Faso) - [Detailed measure text]	2020-04-23
BG	BG (Bulgaria) - [Detailed measure text]	2020-04-23
BH	BH (Bahrain) - [Detailed measure text]	2020-04-23
BI	BI (Benin) - [Detailed measure text]	2020-04-23
BJ	BJ (Benin) - [Detailed measure text]	2020-04-23
BK	BK (Bosnia and Herzegovina) - [Detailed measure text]	2020-04-23
BL	BL (Belize) - [Detailed measure text]	2020-04-23
BM	BM (Bermuda) - [Detailed measure text]	2020-04-23
BN	BN (Brunei Darussalam) - [Detailed measure text]	2020-04-23
BO	BO (Bolivia) - [Detailed measure text]	2020-04-23
BR	BR (Brazil) - [Detailed measure text]	2020-04-23
BS	BS (Bahamas) - [Detailed measure text]	2020-04-23
BT	BT (Bhutan) - [Detailed measure text]	2020-04-23
BV	BV (Bouvet Island) - [Detailed measure text]	2020-04-23
BW	BW (Botswana) - [Detailed measure text]	2020-04-23
BX	BX (Bosnia and Herzegovina) - [Detailed measure text]	2020-04-23
BY	BY (Belarus) - [Detailed measure text]	2020-04-23
BZ	BZ (Belize) - [Detailed measure text]	2020-04-23
CA	CA (Canada) - [Detailed measure text]	2020-04-23
CC	CC (Cocos (Keeling) Islands) - [Detailed measure text]	2020-04-23
CD	CD (Congo) - [Detailed measure text]	2020-04-23
CE	CE (Cape Verde) - [Detailed measure text]	2020-04-23
CF	CF (Central African Republic) - [Detailed measure text]	2020-04-23
CG	CG (Congo) - [Detailed measure text]	2020-04-23
CH	CH (Switzerland) - [Detailed measure text]	2020-04-23
CI	CI (Cote d'Ivoire) - [Detailed measure text]	2020-04-23
CK	CK (Cook Islands) - [Detailed measure text]	2020-04-23
CL	CL (Chile) - [Detailed measure text]	2020-04-23
CM	CM (Cameroon) - [Detailed measure text]	2020-04-23
CN	CN (China) - [Detailed measure text]	2020-04-23
CO	CO (Colombia) - [Detailed measure text]	2020-04-23
CR	CR (Costa Rica) - [Detailed measure text]	2020-04-23
CU	CU (Cuba) - [Detailed measure text]	2020-04-23
CV	CV (Cape Verde) - [Detailed measure text]	2020-04-23
CW	CW (Curaçao) - [Detailed measure text]	2020-04-23
CX	CX (Hong Kong) - [Detailed measure text]	2020-04-23
CY	CY (Cyprus) - [Detailed measure text]	2020-04-23
CZ	CZ (Czechia) - [Detailed measure text]	2020-04-23
DA	DA (Denmark) - [Detailed measure text]	2020-04-23
DC	DC (Denmark) - [Detailed measure text]	2020-04-23
DD	DD (Denmark) - [Detailed measure text]	2020-04-23
DE	DE (Germany) - [Detailed measure text]	2020-04-23
DF	DF (Denmark) - [Detailed measure text]	2020-04-23
DG	DG (Denmark) - [Detailed measure text]	2020-04-23
DH	DH (Denmark) - [Detailed measure text]	2020-04-23
DI	DI (Denmark) - [Detailed measure text]	2020-04-23
DJ	DJ (Djibouti) - [Detailed measure text]	2020-04-23
DK	DK (Denmark) - [Detailed measure text]	2020-04-23
DL	DL (Denmark) - [Detailed measure text]	2020-04-23
DM	DM (Dominica) - [Detailed measure text]	2020-04-23
DN	DN (Denmark) - [Detailed measure text]	2020-04-23
DO	DO (Dominican Republic) - [Detailed measure text]	2020-04-23
DP	DP (Denmark) - [Detailed measure text]	2020-04-23
DQ	DQ (Denmark) - [Detailed measure text]	2020-04-23
DR	DR (Democratic Republic of Congo) - [Detailed measure text]	2020-04-23
DS	DS (Denmark) - [Detailed measure text]	2020-04-23
DT	DT (Denmark) - [Detailed measure text]	2020-04-23
DU	DU (Denmark) - [Detailed measure text]	2020-04-23
DV	DV (Denmark) - [Detailed measure text]	2020-04-23
DW	DW (Denmark) - [Detailed measure text]	2020-04-23
DX	DX (Denmark) - [Detailed measure text]	2020-04-23
DY	DY (Denmark) - [Detailed measure text]	2020-04-23
DZ	DZ (Algeria) - [Detailed measure text]	2020-04-23

## DAILY PUBLICATIONS

Eamonn Brennan @eurocontrolDG · 3h  
 #COVID19 We're flying mostly within Europe but a few long haul flights are still taking place - focus very much on the Northern Hemisphere

Top 50 long-haul (>4000km) routes

- ECAC
- AsiaPacific
- North-Atlantic
- Middle-East
- North-Africa
- Mid-Atlantic
- South-Atlantic
- Southern Africa
- Other Europe

# Provision of Essential Data for Decision-Making



EUROCONTROL GENERAL DIRECTORATE  
Rue de la Fonderie 96, 1150 Brussels  
Tel: +32 2 739 91 11 www.eurocontrol.be

Date: 24 April 2020  
Ref: 00009\_0209  
Subject: EUROCONTROL Scenario 2020  
Contact: David Hendrick  
Direct Line: +32 2 739 37 69

Dear Mr. Gerdorf,

I have been providing the ongoing on-traffic data to you. Traffic across Europe will be slower by airlines as operations are open in the aviation sector.

Dear Mr. Gerdorf, in view of recent Europe-wide events at the end of the week, there may be a (partial) effect on air traffic management.

As you well know, the dramatic decision will be taken on air traffic management charges system.

The agreement on the control services for 2020, and cumulated from August 2019 and August 2020 clarifications of Heerbaart, Dierckx is important for us.

I thank you for your attention.

Yours sincerely,  
Emanon Berman

EUROCONTROL GENERAL DIRECTORATE  
Rue de la Fonderie 96, 1150 Brussels  
Tel: +32 2 739 91 11 www.eurocontrol.be

Date: 7 April 2020  
Ref: 00020\_0201  
Subject: Financial support  
Contact: Emanon Berman  
Direct Line: +32 2 739 3500

Dear Mr de Junck,

I refer to your request which has arisen.

I am pleased to assist decision-makers, reduce cash burn and provide leadership.

Supporting European Aviation is our goal and we have put major effort into practical measures to assist decision-makers, reduce cash burn and provide leadership.

Our plan is to re-schedule all the normal activities once the COVID-19 restrictions are lifted and I really look forward to welcoming you back to EUROCONTROL later in the year.

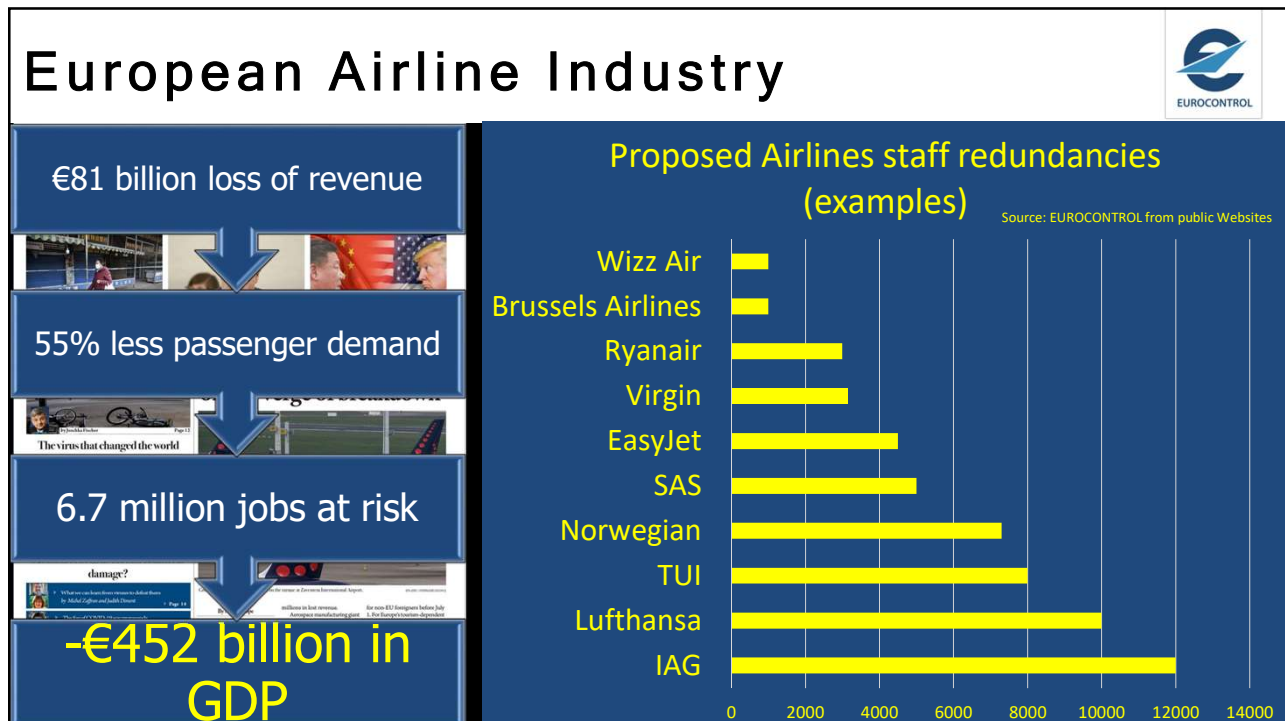
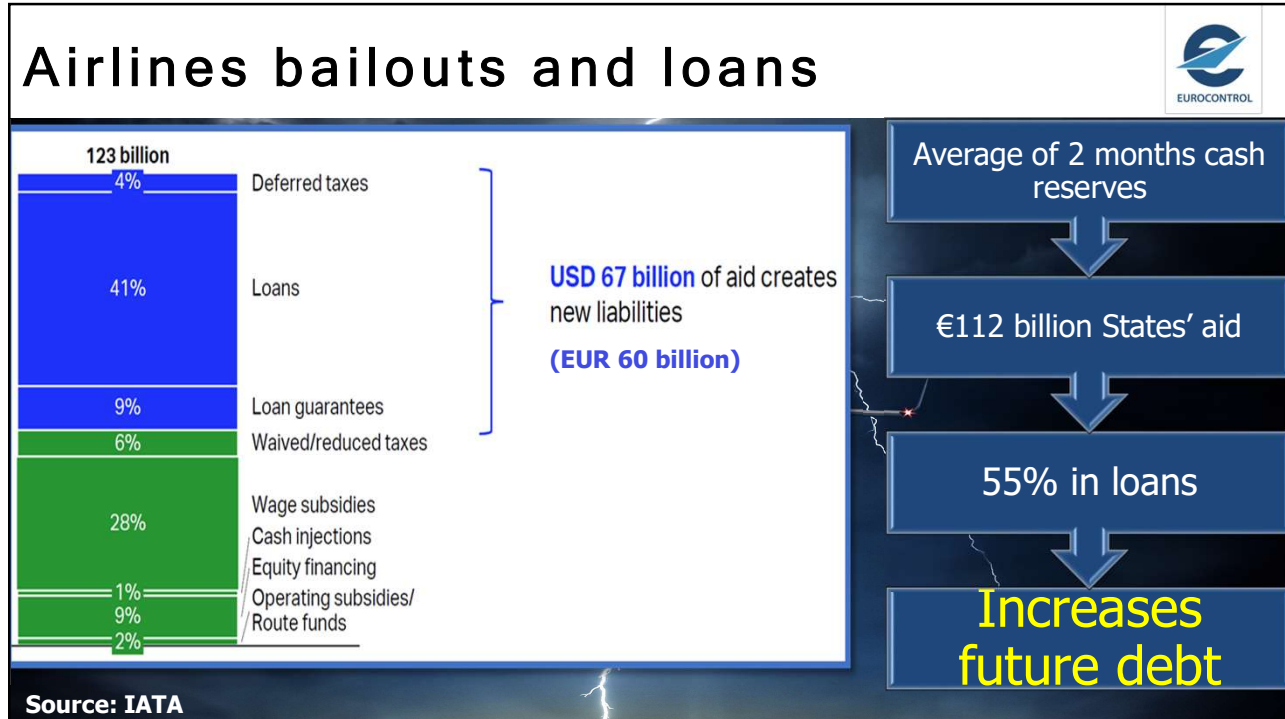
In summary:

- 1) Financial Assistance: The biggest issue facing the entire industry is liquidity. Air traffic was down 88% in April and we only expect a marginal increase in May (as indicated in the EUROCONTROL Traffic Scenario for Europe that I shared with you on 24 April). Airlines have no income and therefore cannot pay their staff and creditors. You will be aware that EUROCONTROL Member States have already taken some key decisions in order to deal with this cash crisis.
  - a) Support to airlines: On 6 April, the Member States approved a proposal by the Agency to defer €1.1 billion in airspace user charges due to be paid during April, May, June and July, to later in 2020 and 2021. This was a crucially important decision as it was clear to the Central Route Charges Office (CROCO) that the vast majority of airlines were not in a position to meet their April payment obligation amounting to €218 million. We were facing a collapse of the entire route charges system. However, thanks to this measure, the route charges system has been protected and financial planning for airlines and ANSPs has been made possible.

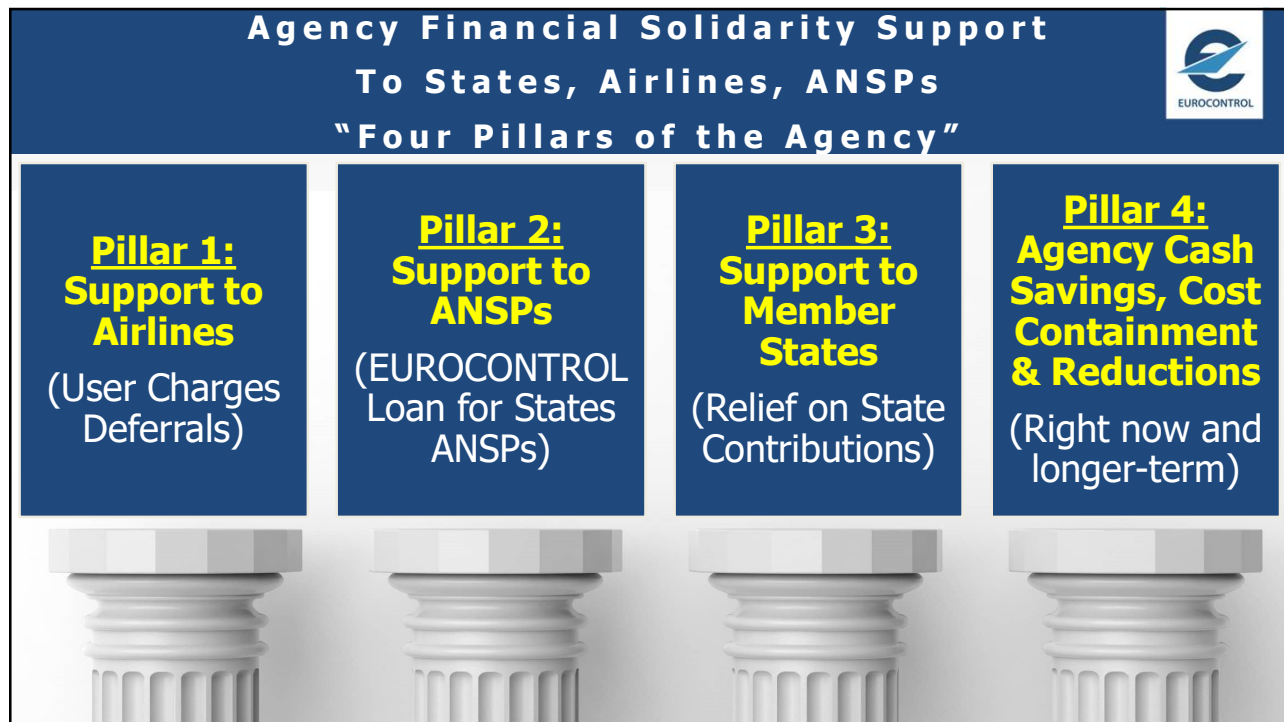
## To Member States To Industry

# EUROCONTROL Financial measures to assist Industry









**Agency Financial Solidarity Support  
To States, Airlines, ANSPs  
"Four Pillars of the Agency"**





**Pillar 2:  
Support to  
ANSPs**  
(EUROCONTROL  
Loan for States  
ANSPs)

➔

**Securing a loan of up  
to €1.3 billion to fund  
minimal ATM services**

**Agency Financial Solidarity Support  
To States, Airlines, ANSPs  
"Four Pillars of the Agency"**



**Target proposal of  
19% saving  
over 12 months**

←

**Pillar 3:  
Support to  
Member  
States**  
(Relief on State  
Contributions)

Agency Financial Solidarity Support  
To States, Airlines, ANSPs  
"Four Pillars of the Agency"

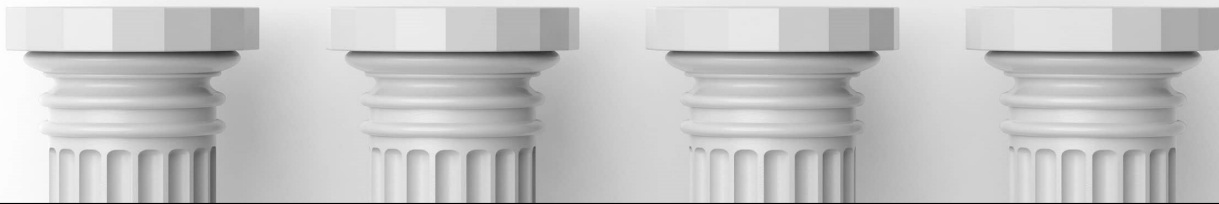


*Target proposal*

- *Short term: €28m (2020)*
- *Medium term: Staff departures*
- *Long term: Strategic review*

**Pillar 4:  
Agency Cash  
Savings, Cost  
Containment  
& Reductions**

(Right now and longer-term)



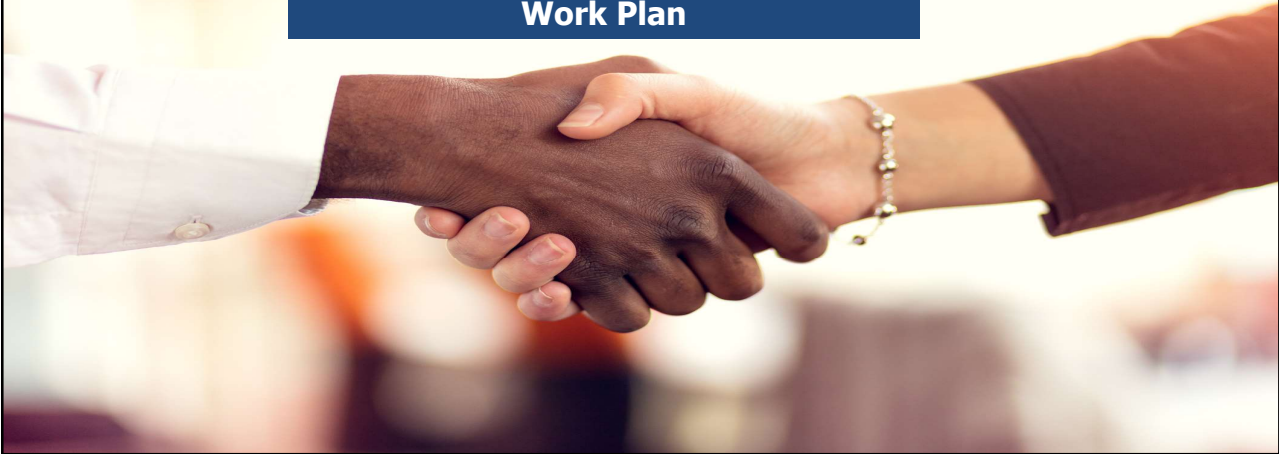
EUROCONTROL  
&  
ICAO



# EUROCONTROL / ICAO



**Strong Partnership built up over many years**  
**MoC 1996 – Exchange of letters / Work Plan**



# EUROCONTROL Contribution



COORDINATED WITH

ATMRPP, ATMOPS, CEAP, ADOP, CP, FLOPSP, FSMP, IMP, METP, EASPG, AWOOG, FMG, PBN TF, RDGE, VOLCEX etc

Pilot: Time Based Separation (TBS)

GADSS ConOps, GANP etc

SWIM/AIM, PBN, CNS, FUA etc

HQ/ANB

EUR RMA, SSR Code Management, Frequency function, PBCS monitoring, ASBU implementation monitoring, ATS Route and Network development support etc.

- 14+ Panels/Committees HQ
- 19+ Regional

• Direct Entry SARP

• Multi disciplinary efforts

• Main events/Campaigns

• Secondment

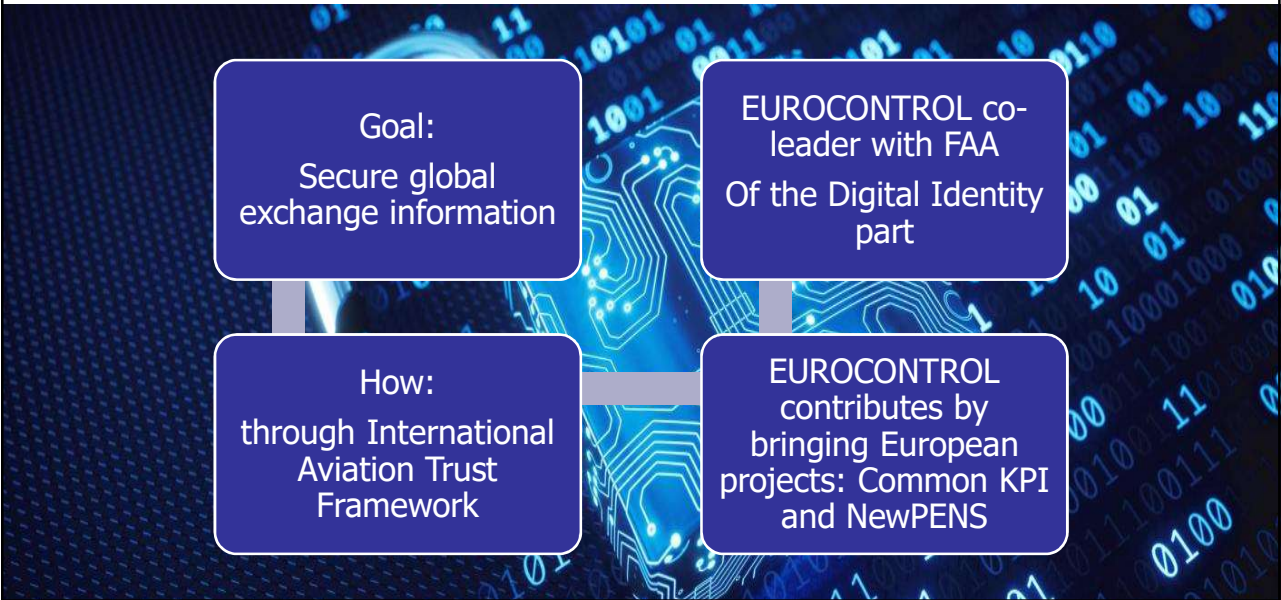
• Services & support



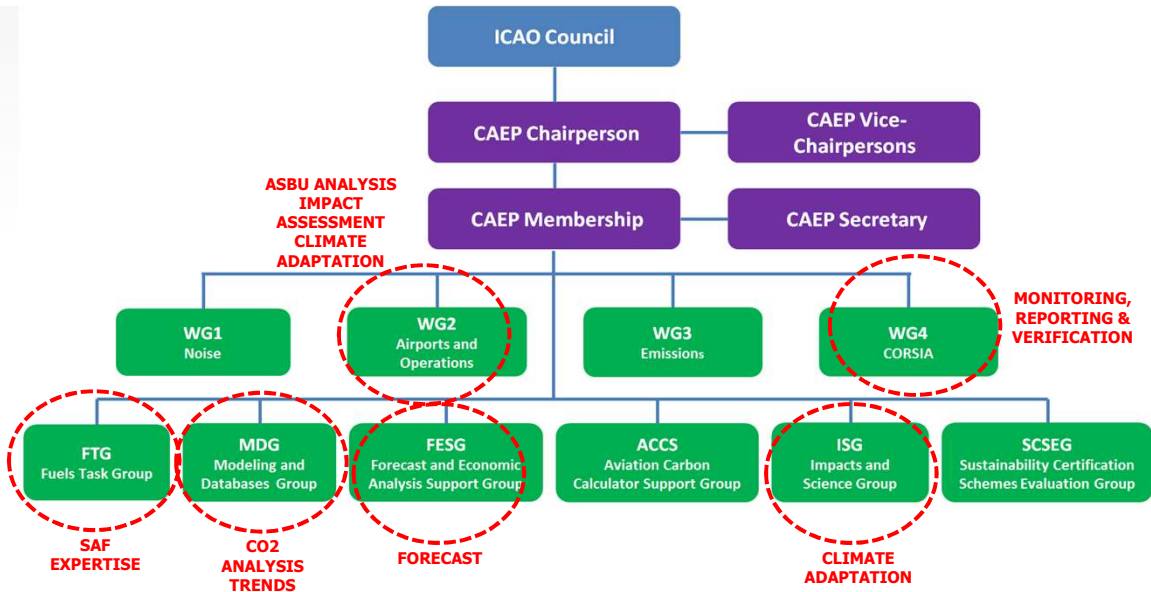
# Direct Entry SARPs with TBS



# Cybersecurity - Trust Framework Study Group (TFSG)



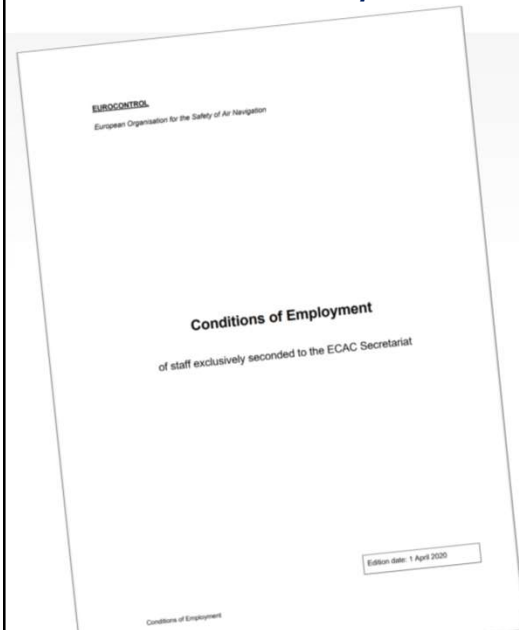
# Support to ICAO Committee on Aviation Environmental Protection (CAEP)



EUROCONTROL  
Other  
Developments



## EUROCONTROL / ECAC Agreement



Effective 1<sup>st</sup> April 2020

Provision of Administrative services to ECAC (Finance, HR)

Transition from ICAO underway

61

## EUROCONTROL Network Manager



**EUROCONTROL ADS-B AIREON**

**INTER-CONTINENTAL FLOW MANAGEMENT**

**EUROCONTROL NETWORK MANAGER Data Exchange Agreements:**  
Brazil, Singapore, Azerbaijan, US, UAE etc.

**Network Manager Digital Transformation**  
"iNM"

# Support to EU Bodies



Extensive Joint Work Programme

New Joint Technical Coordination Office

Progressing on SESAR 2 by end 2022

SESAR 3 Ongoing Consultation Process

ANSP GREEN LABEL PROJECT  
• EUROCONTROL MUAC as a pilot

EUROCONTROL will continue to support SESAR research

SESAR Deployment  
↓  
EUROCONTROL NM Infrastructure Manager

# Network Centric & Digital European Sky





# EUROCONTROL - The Way Ahead



Support the **COVID19 Recovery**

Support **Single European Sky** & coordinate with partners

Support States & Industry – Best **Technical** expertise and coordination

Help delivery **Sustainable** approach to aviation



## SUPPORTING EUROPEAN AVIATION



Thank you  
Eamonn Brennan, Director General  
[@eurocontrolDG](https://twitter.com/eurocontrolDG)



Supporting  
European  
Aviation



# EUROPEAN AVIATION, COVID and the RECOVERY

*ICAO ANC TALK*

Eamonn Brennan  
Director General

8 June 2020



## European Aviation



## Key Facts - European Aviation



### Airlines

- Profits high – for just a few airlines



### Airspace

- Fragmented



### Infrastructure

- Very few new runways



## Key Facts - European Aviation



### Value

- 12.2m jobs
- €750m to GDP



### Environment

- Flygskam
- Investors now interested



### Demographics

- Aging population (Vs Asia)

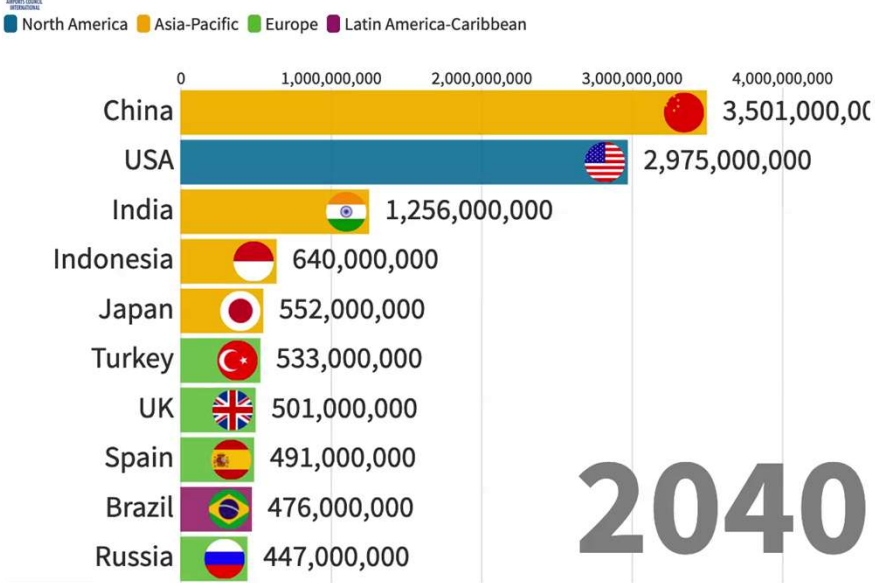


# Top-10 European Airlines 2019 - Passengers



TOP-10 EUROPEAN AIRLINES (PASSENGERS) 2019		
SOURCE: CAPA		
Airline (groups)	Million Passengers	Change vs. 2018
Ryanair	152	+9.5%
Lufthansa	145	+2.3%
IAG	118	+4.7%
Air France-KLM	104	+2.7%
easyJet	97	+5.9%
Turkish	74	-1.1%
Aeroflot	61	9.2%
Wizz Air	40	+17.7%
Norwegian	36	-2.8%
Pegasus	30	-0.3%

## Top 10 largest passenger markets across time (2010-2040)

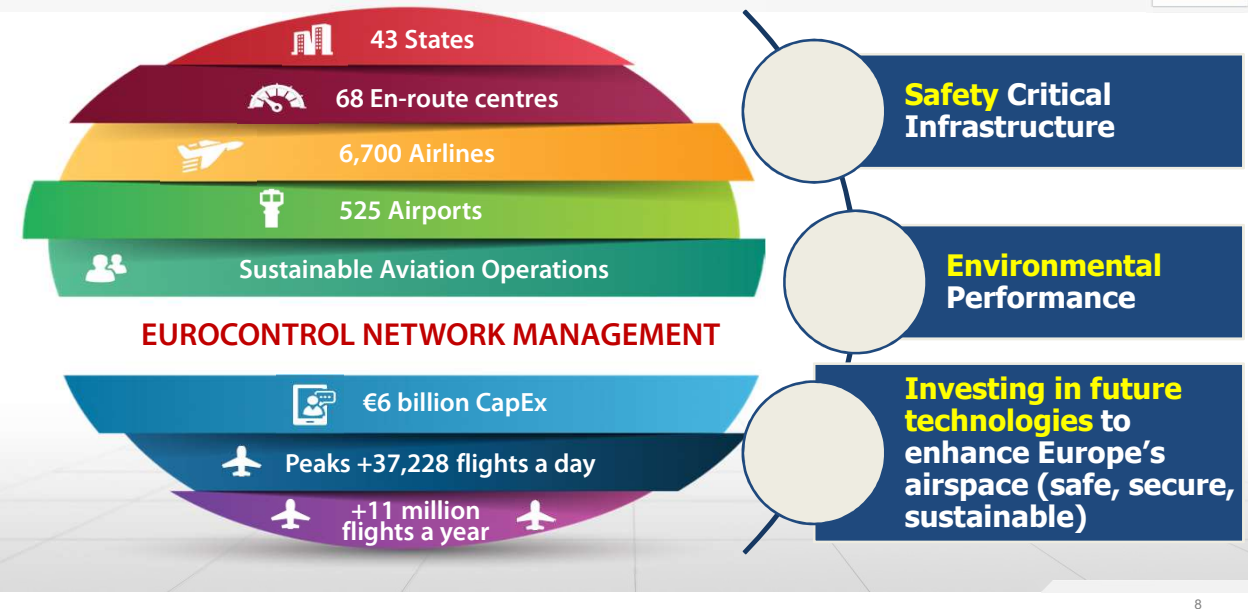


2040

Source: Airports Council International • Data was extracted from the 2019 ACI datasets



# Air Traffic Management in Europe



# Europe's Airspace Is Inefficient



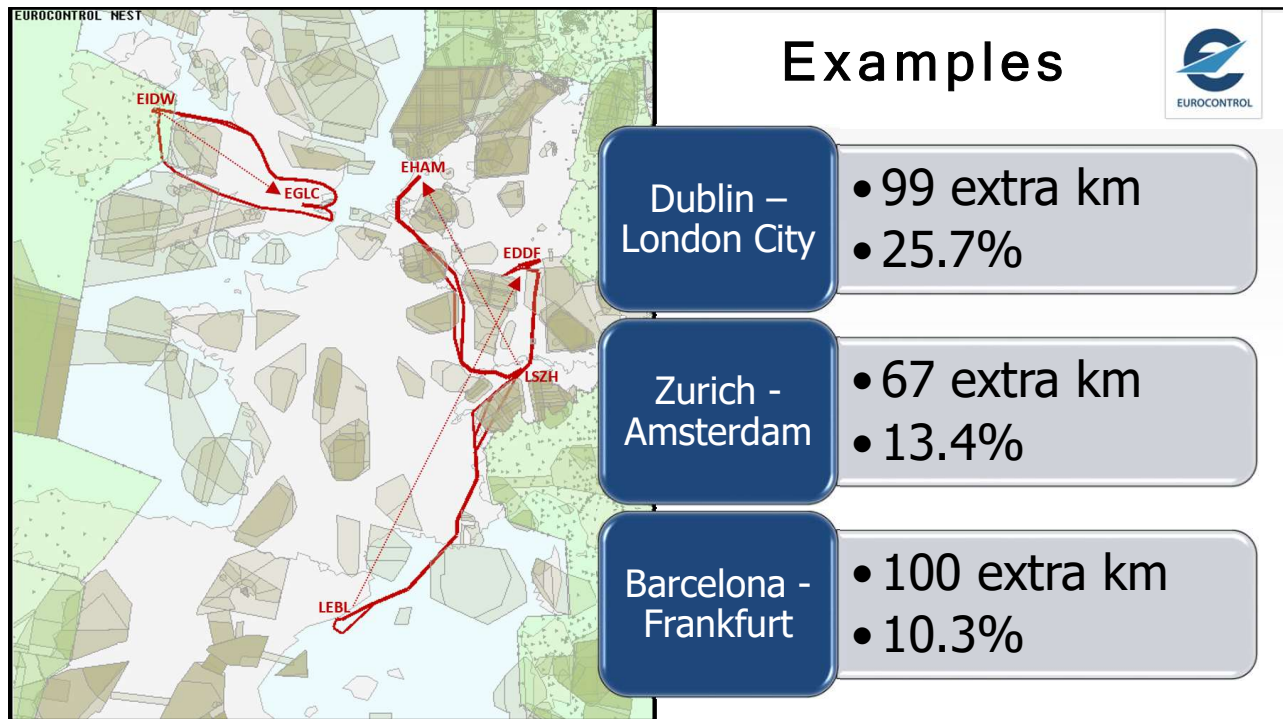
**European  
Airspace is  
fragmented**

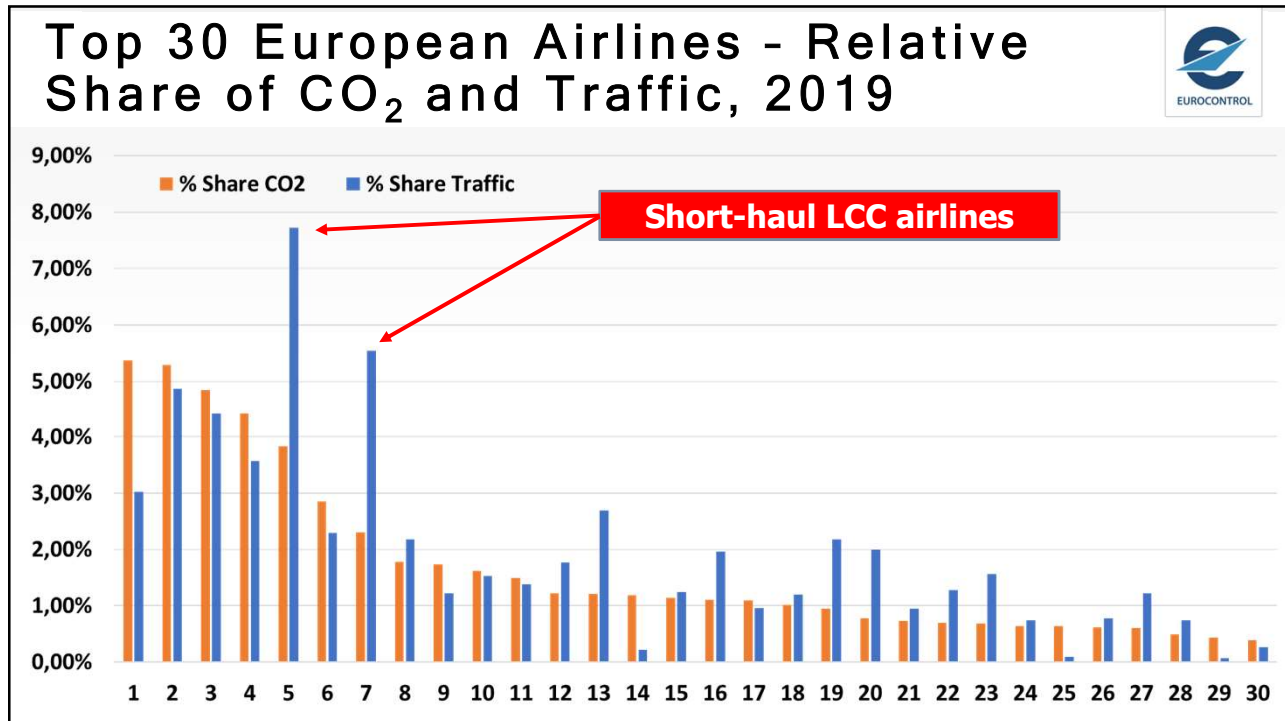
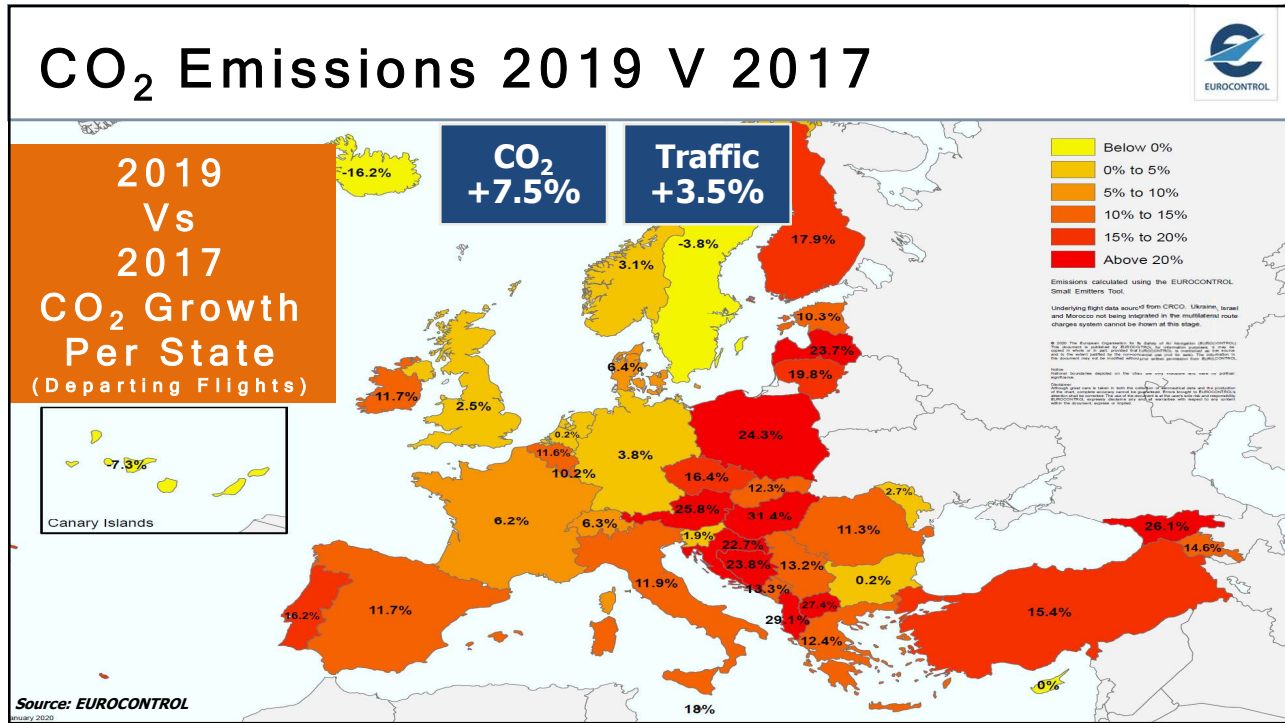
**Lack of real network**

**Longer/Lower Routings**

**ATC Bottlenecks**

**Staffing & Capacity**





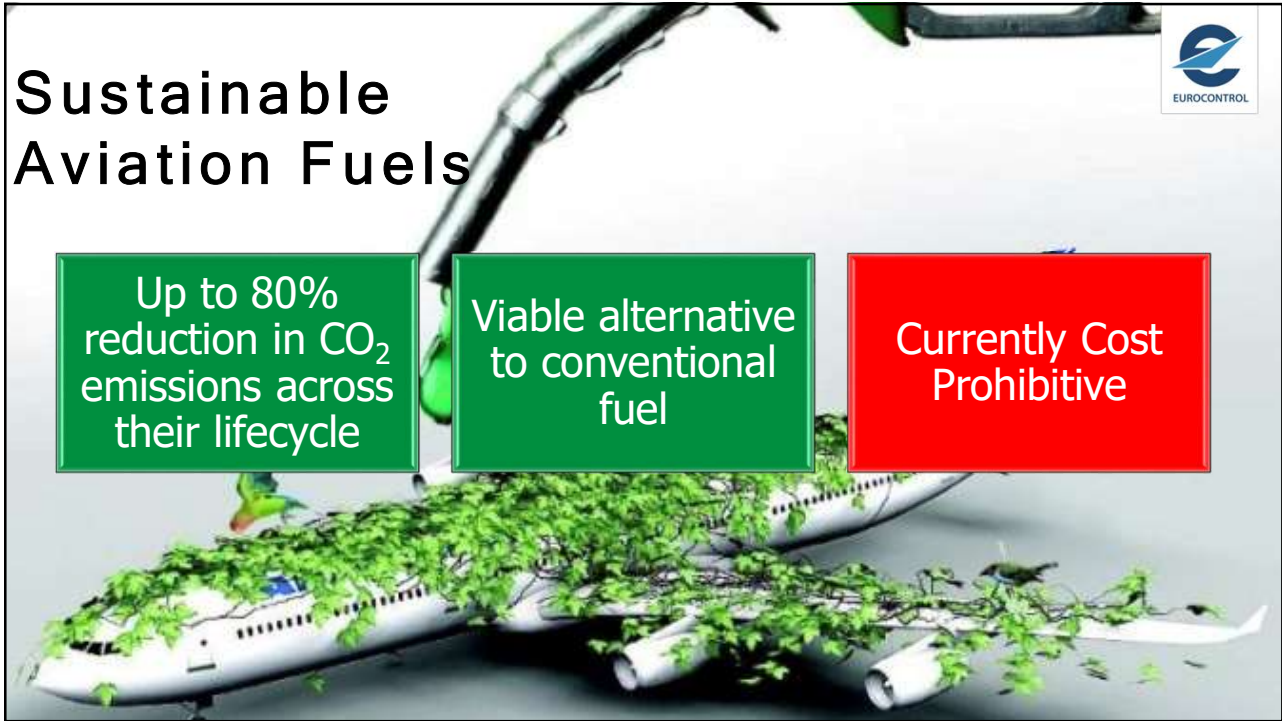
# Sustainable Aviation Fuels



Up to 80% reduction in CO<sub>2</sub> emissions across their lifecycle






Viable alternative to conventional fuel

Currently Cost Prohibitive



# Decarbonisation: Top 5 Options



- 1  Change the European Network
- 2  Fund transition to Sustainable Aviation Fuels
- 3  Develop highly-efficient, large-capacity, short-haul aircraft
- 4  Undertake a total fleet renewal by 2050
- 5  Hybridisation, acting as a bridge to electrification of the fleet, especially short-haul aircraft







# EUROCONTROL

## International Organisation

### 41 x Member States

+ Morocco and Israel



**EUROCONTROL Office Locations:**

-  **BELGIUM**  
Brussels (HQ & ATM Network)
-  **NETHERLANDS**  
Maastricht (MUAC ANSP)
-  **FRANCE**  
Brétigny-sur-Orge (Research Centre)
-  **LUXEMBOURG**  
Luxembourg (Training Centre)

# EUROCONTROL's CENTRAL ROLE For European Aviation

Air Traffic Network Manager for all of Europe  
+11 million flights in 2019

ATC Financing - €9 billion p.a.

Maastricht Air Navigation Service Provider

Civil-Military coordination

Air Traffic Expert support to EU bodies

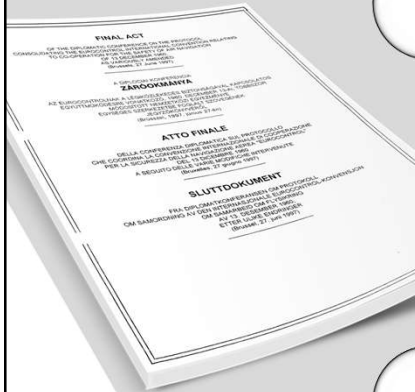
Pan-European



## Coordination With Our Partners



# EUROCONTROL Legal Framework

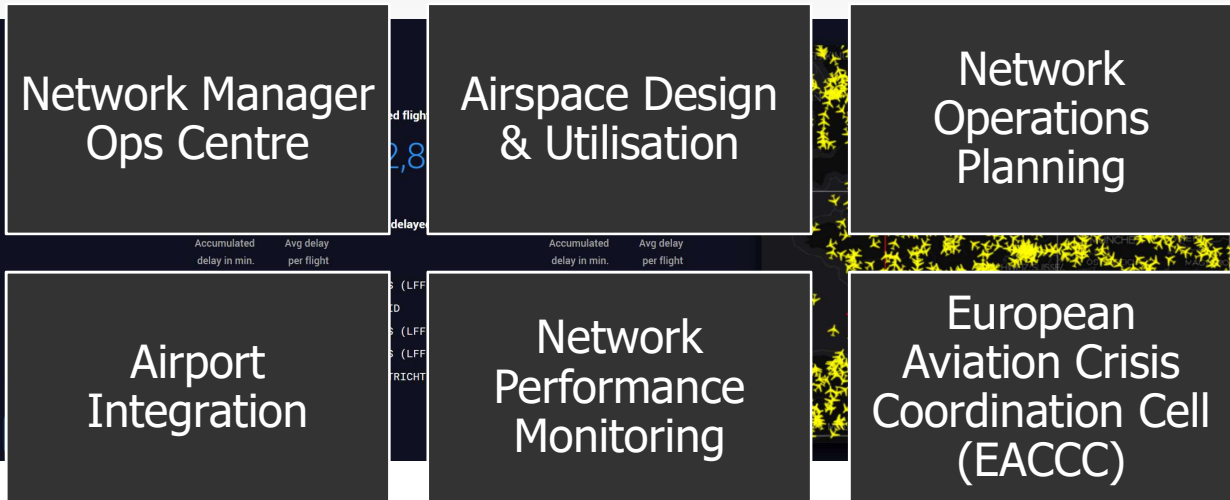


- 
**EUROCONTROL Convention 1960 (Amended 1981)**
- 
**Multilateral Agreement relating to Route Charges 1981**
- 
**Revised Convention 1997**  
 - Not yet in force
- 
**EU Accession Protocol 2002**  
 - Not yet in force



# EUROCONTROL Network Manager

NETWORK MANAGER





## R&D at Brétigny



**SESAR Contribution**

**Network  
Management**



**ATS & RPAS**

**Airports**

**Digitalisation**


**Simulations**

## Technical support provided to States & Industry

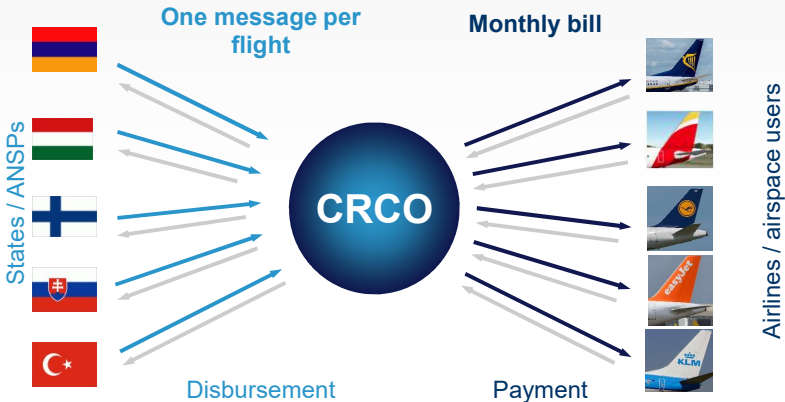



- France – Validation Exercises at Paris CDG
- Ireland - Human Factors in Dublin Airport operations
- United Kingdom CAA – Analysis of Delays
- Spain - Barcelona Airport
- Switzerland - Zurich Airport simulation
- Turkey - DHMI Simulations
- Standardisation Stakeholders workshop
- Israel/Cyprus – Simulations

## ATC En route Route Charges System



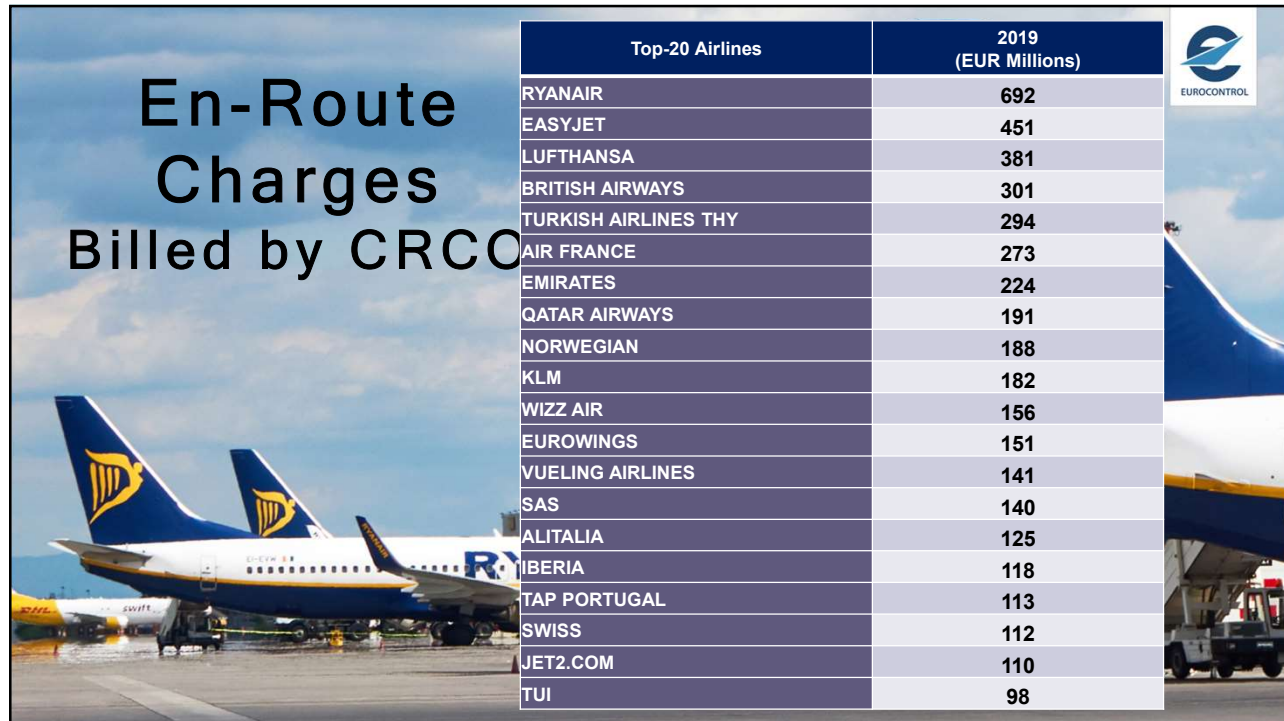
- Cost €8 billion per year**
- Paid for by Airlines as Route Charges**
- Managed by EUROCONTROL Central Route Charges Office (CRCO)**
- 99.8% Recovery Rate**



The diagram illustrates the flow of route charges. On the left, 'States / ANSPs' (represented by flags of Romania, Hungary, Finland, Slovakia, and Turkey) send 'One message per flight' to the central 'CRCO' (Central Route Charges Office). From CRCO, 'Disbursement' occurs back to the States/ANSPs. On the right, 'Airlines / airspace users' (represented by logos of Air France, Ryanair, British Airways, easyJet, and KLM) receive a 'Monthly bill' from CRCO and provide 'Payment' back to it.

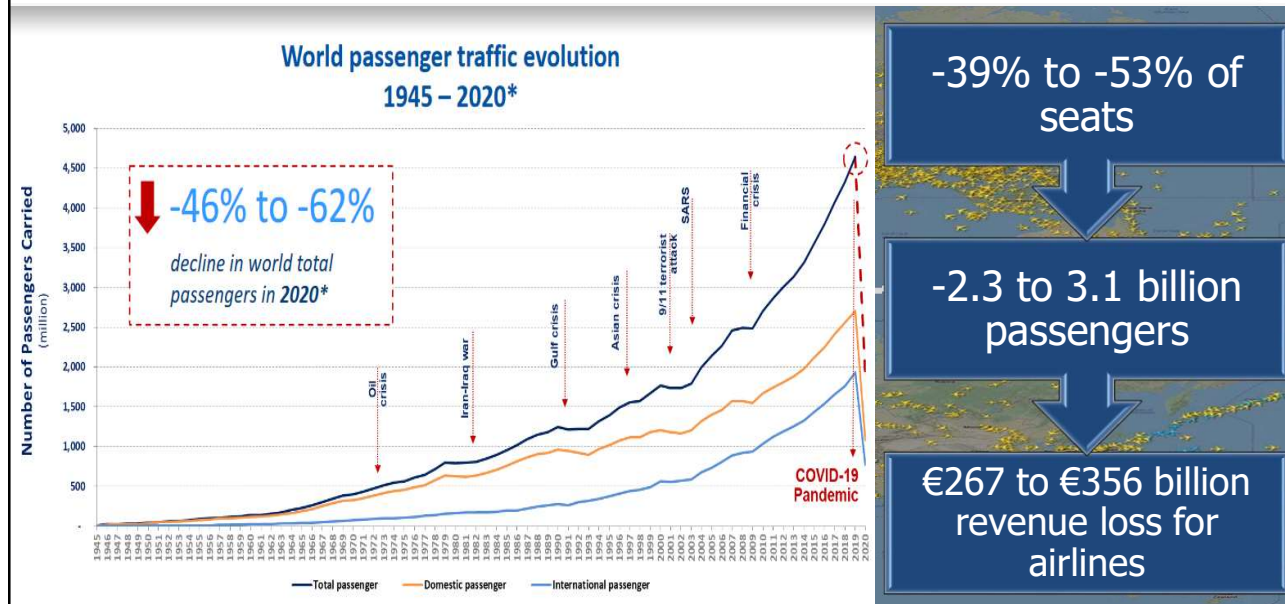
# En-Route Charges Billed by CRCO

Top-20 Airlines	2019 (EUR Millions)
RYANAIR	692
EASYJET	451
LUFTHANSA	381
BRITISH AIRWAYS	301
TURKISH AIRLINES THY	294
AIR FRANCE	273
EMIRATES	224
QATAR AIRWAYS	191
NORWEGIAN	188
KLM	182
WIZZ AIR	156
EUROWINGS	151
VUELING AIRLINES	141
SAS	140
ALITALIA	125
IBERIA	118
TAP PORTUGAL	113
SWISS	112
JET2.COM	110
TUI	98



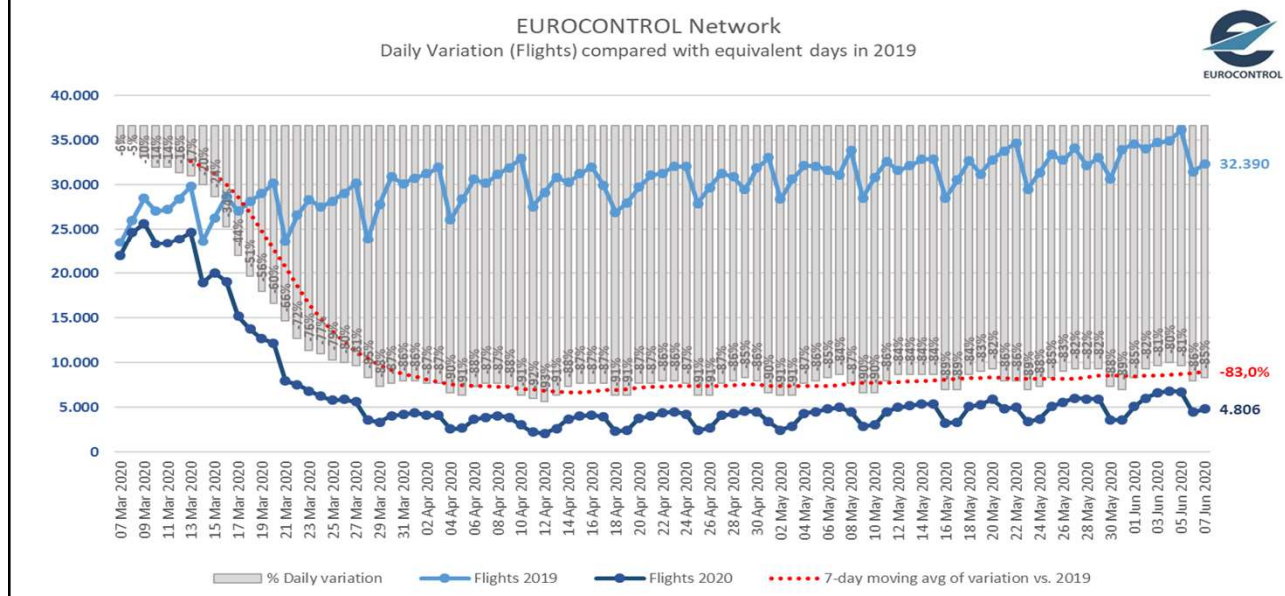

# COVID-19 impact on world air traffic

(ICAO Air Transport Reporting - 5 June 2020)

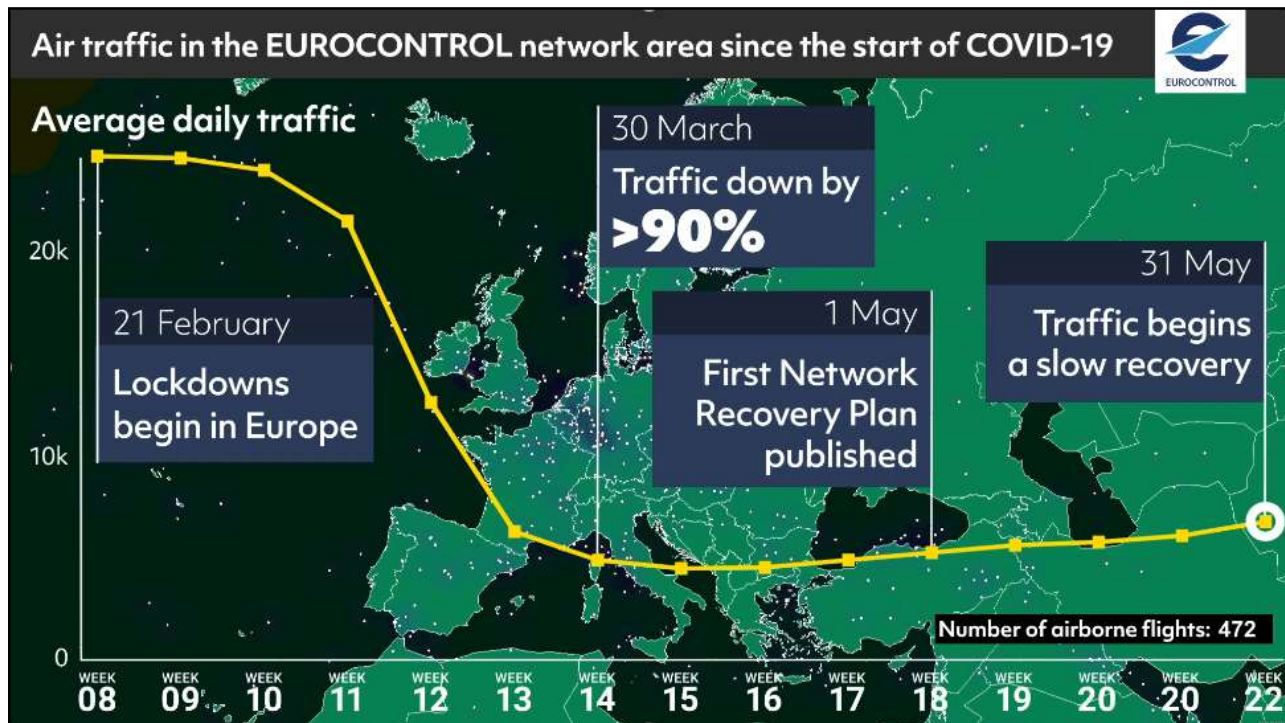
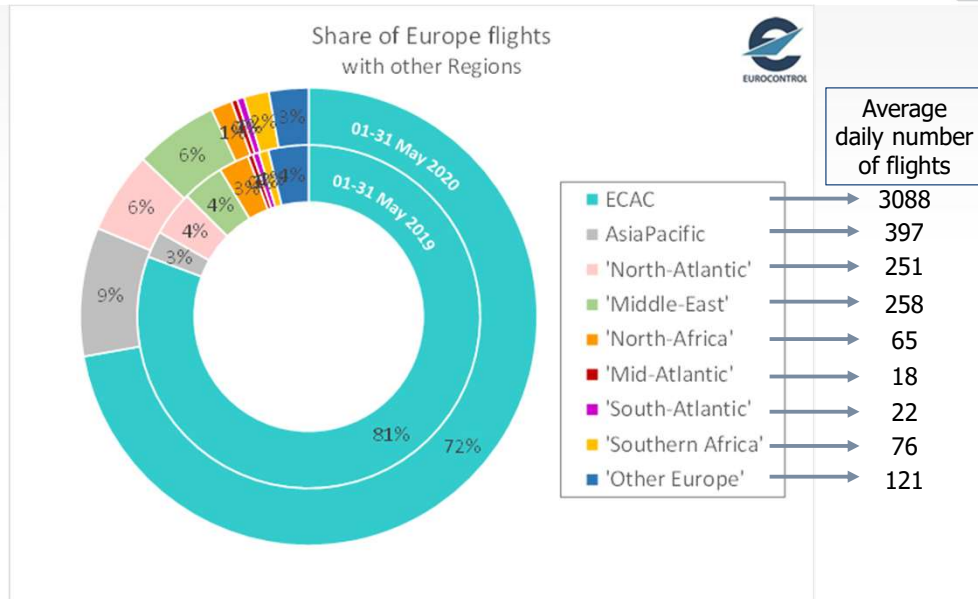


# European Network Traffic

=83% Reduction in European Flights (last 7 days)



# SHARE of EUROPE FLIGHTS with OTHER REGIONS: May 2020 V May 2019

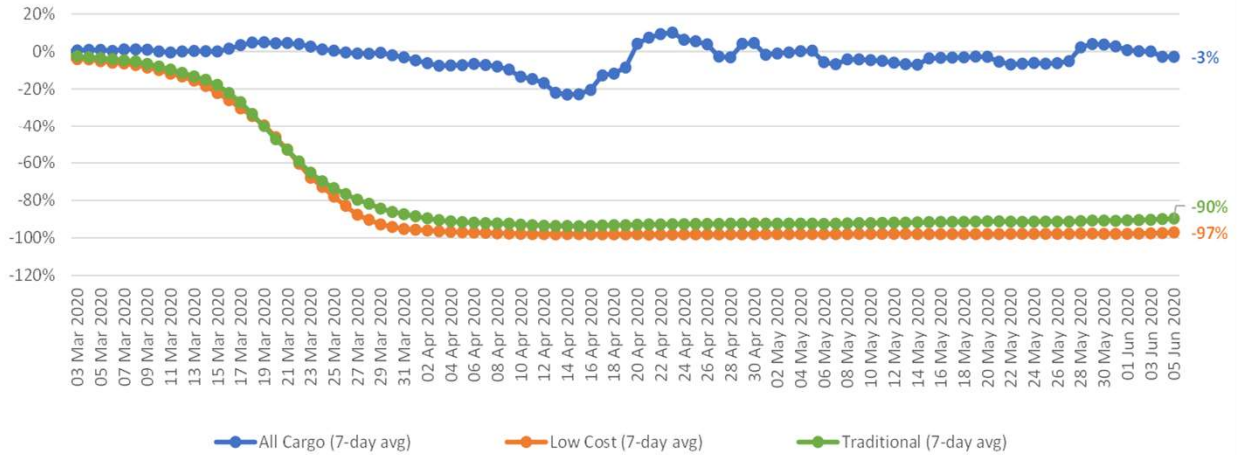




# Market Segments



Market segments in EUROCONTROL Network  
(compared with equivalent days in 2019)  
Daily Variation (Flights)

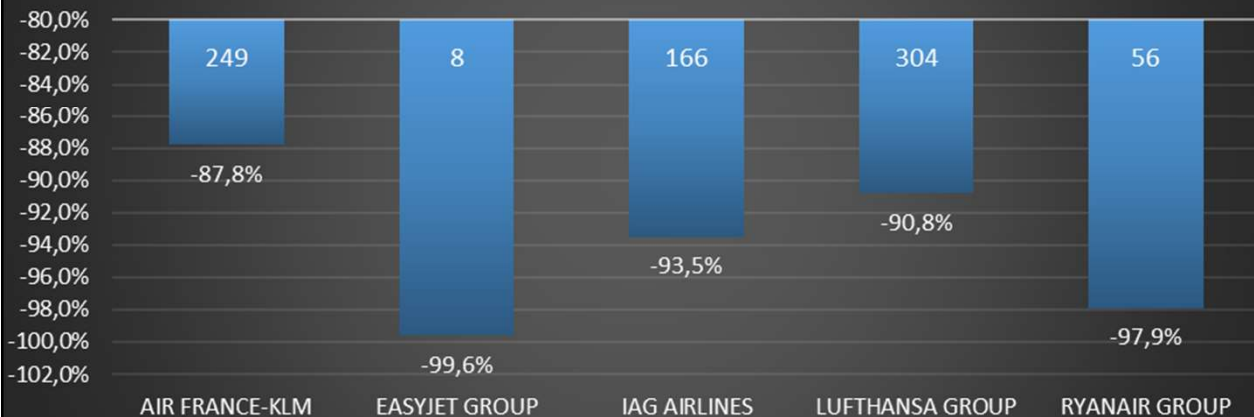


# Airlines



## Air Operator Group | Daily Network Traffic

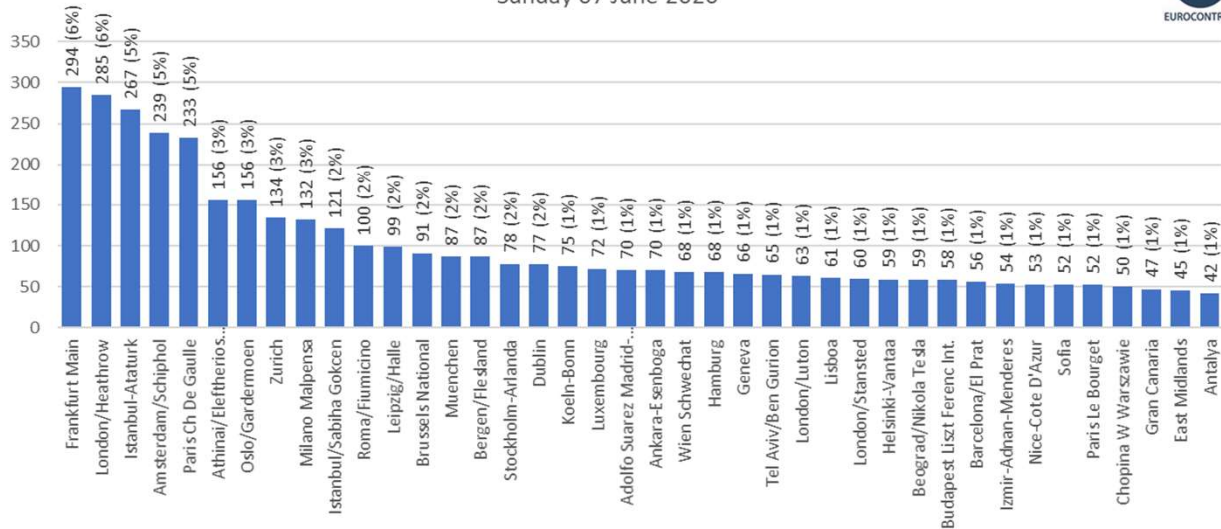
07-06-2020 compared to the same operational day last year



# Airports



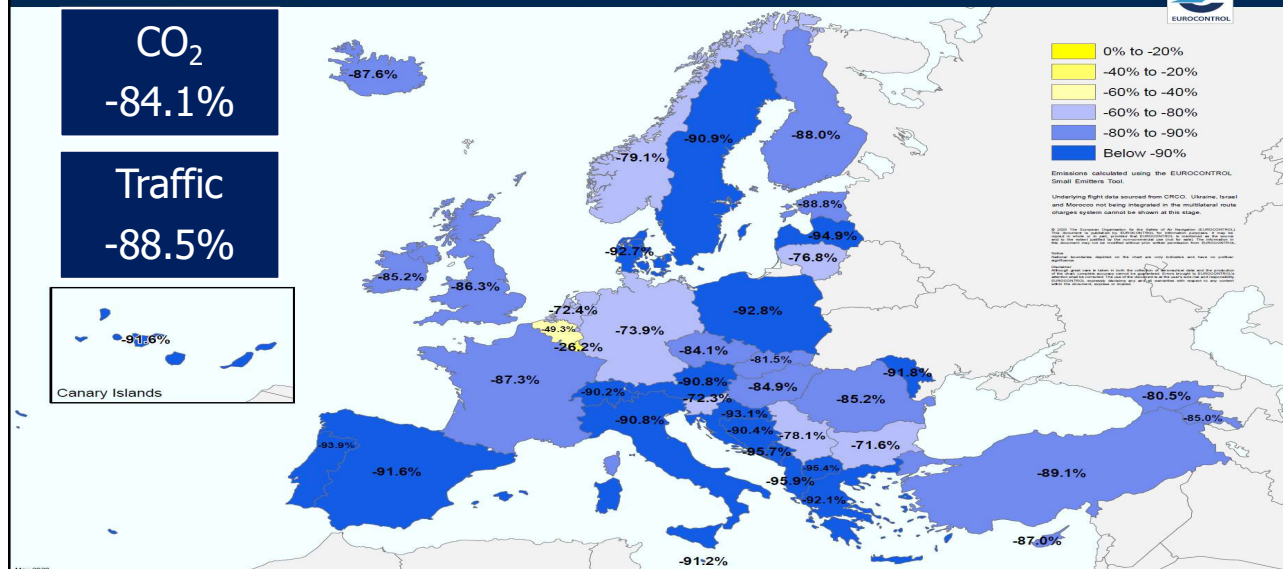
Top 40 Airports (Dep/Arr flights + share)  
Sunday 07 June 2020



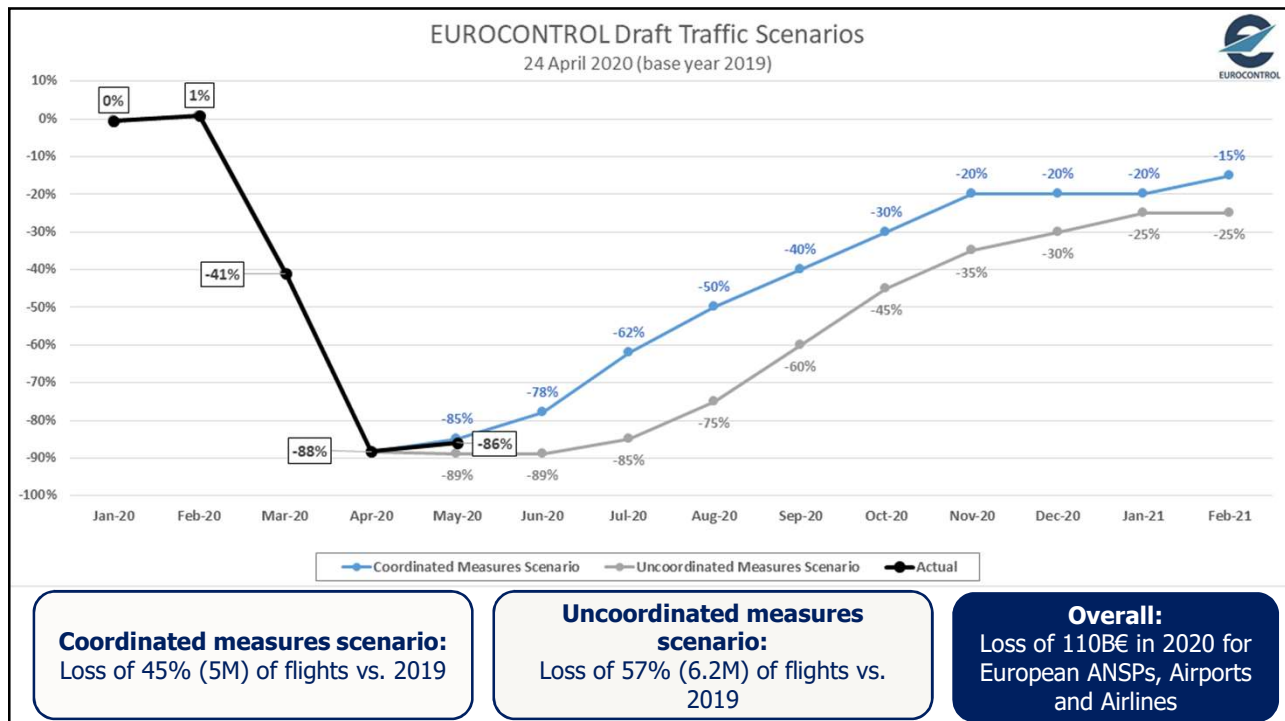
# Environment - April 2020

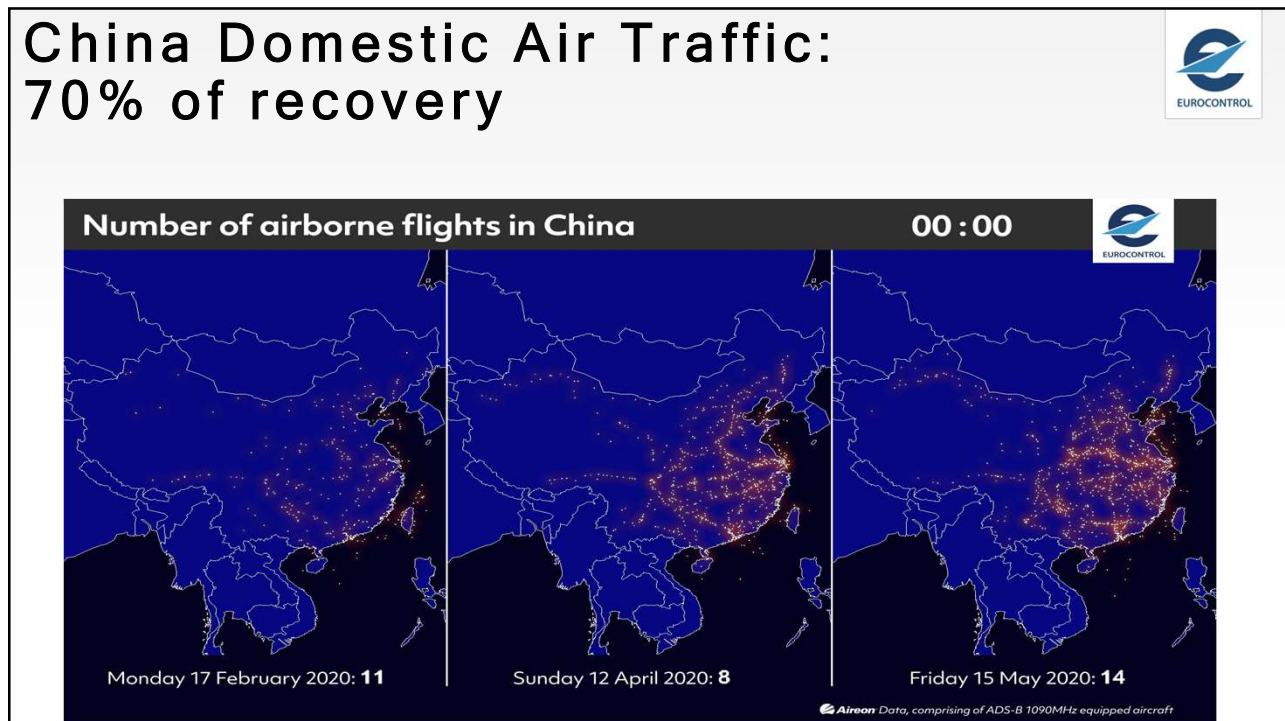
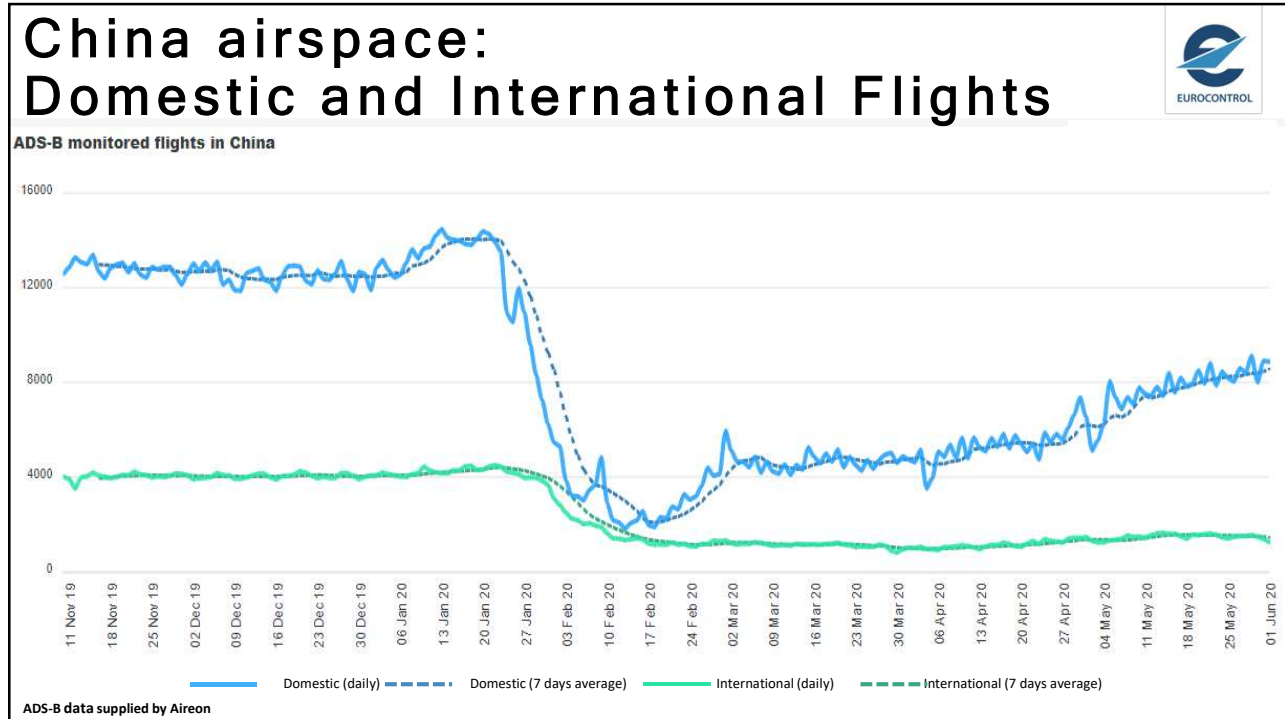


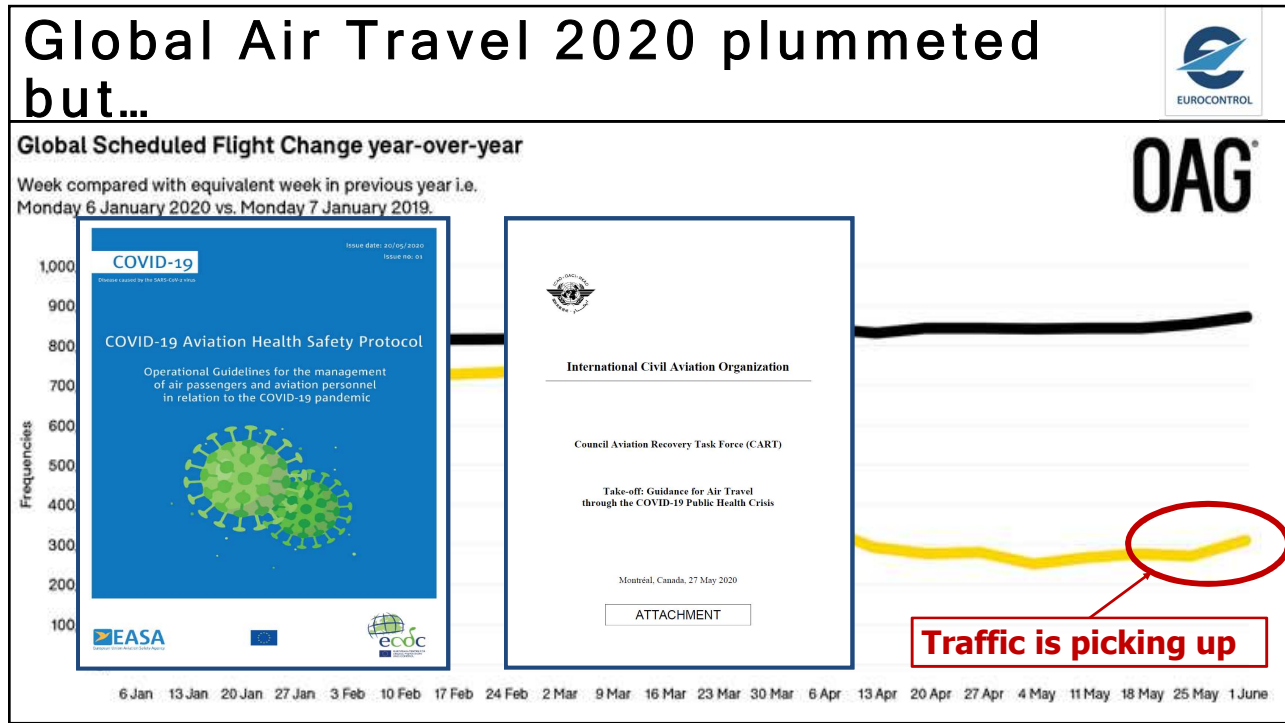
CO<sub>2</sub> Emissions Growth April 2020 vs April 2019 - Departing Flights



# NETWORK OUTLOOK 2020





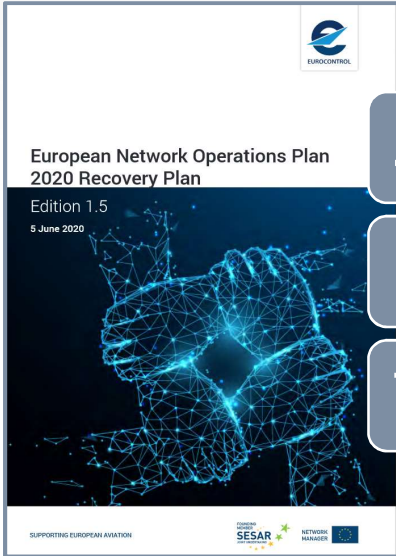
## EUROCONTROL Network Manager Network Operations Recovery Plan

- Covering a rolling four-week period
- Consolidates data from 350 airlines, 68 ACCs, 55 airports and 43 States
- Updated and published on a weekly basis
- Team aviation industry effort

**EUROCONTROL**

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# EUROCONTROL Network Manager Network Operations Recovery Plan



5 June Indicators

10,500 Daily Flights: early July

70% down on July 2019

## EUROCONTROL CRISIS MANAGEMENT ACTIVITIES



# EUROCONTROL Network Manager: COVID Actions



## Traffic Reduction Management

- NOTAMs
- Business Continuity Plans
- eNM/2020 cancellation

## European Aviation Crisis Coordination Cell

- EUROCONTROL NM & EU

## Network Operations Recovery Plan

- Weekly coordination

## Cybersecurity

- Monitoring & Detection

43

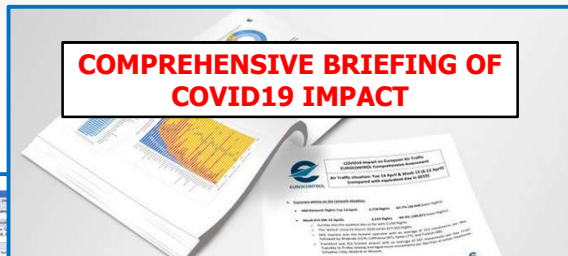
# Provision of Essential Data for Decision-Making



## INTERACTIVE DASHBOARD



## COMPREHENSIVE BRIEFING OF COVID19 IMPACT

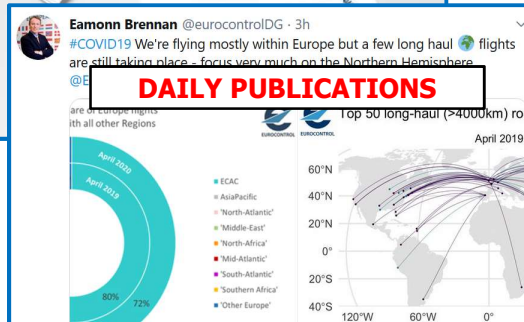


## UPDATE ON AIRLINES & STATES MEASURES

Region	Measure	Effective Date	Source
EUROPE	EUROPEAN AIRLINES	15 April 2020	EUROCONTROL
	EUROPEAN STATES	15 April 2020	EUROCONTROL
	EUROPEAN AIRLINES	15 April 2020	EUROCONTROL
	EUROPEAN STATES	15 April 2020	EUROCONTROL
ASIA	ASIAN AIRLINES	15 April 2020	EUROCONTROL
	ASIAN STATES	15 April 2020	EUROCONTROL
	ASIAN AIRLINES	15 April 2020	EUROCONTROL
	ASIAN STATES	15 April 2020	EUROCONTROL
AFRICA	AFRICAN AIRLINES	15 April 2020	EUROCONTROL
	AFRICAN STATES	15 April 2020	EUROCONTROL
	AFRICAN AIRLINES	15 April 2020	EUROCONTROL
	AFRICAN STATES	15 April 2020	EUROCONTROL
AMERICA	AMERICAN AIRLINES	15 April 2020	EUROCONTROL
	AMERICAN STATES	15 April 2020	EUROCONTROL
	AMERICAN AIRLINES	15 April 2020	EUROCONTROL
	AMERICAN STATES	15 April 2020	EUROCONTROL

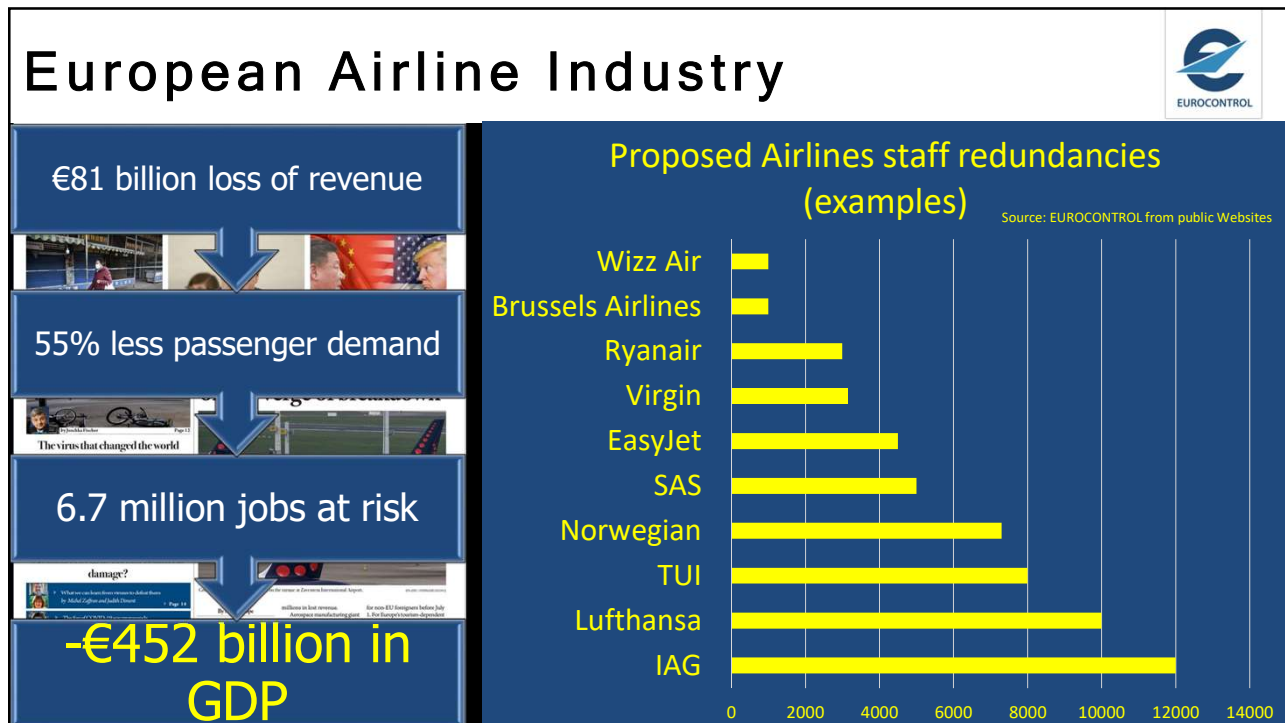
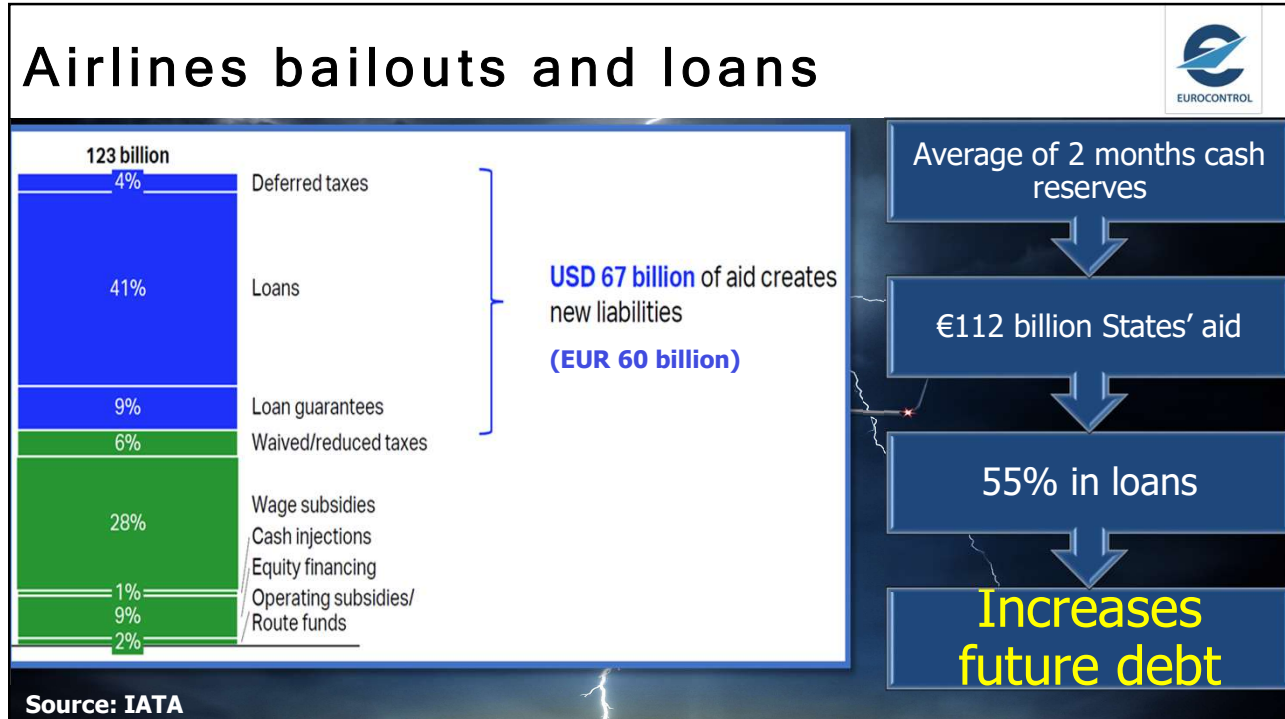
Eamonn Brennan @eurocontrolDG · 3h  
 #COVID19 We're flying mostly within Europe but a few long haul flights are still taking place - focus very much on the Northern Hemisphere

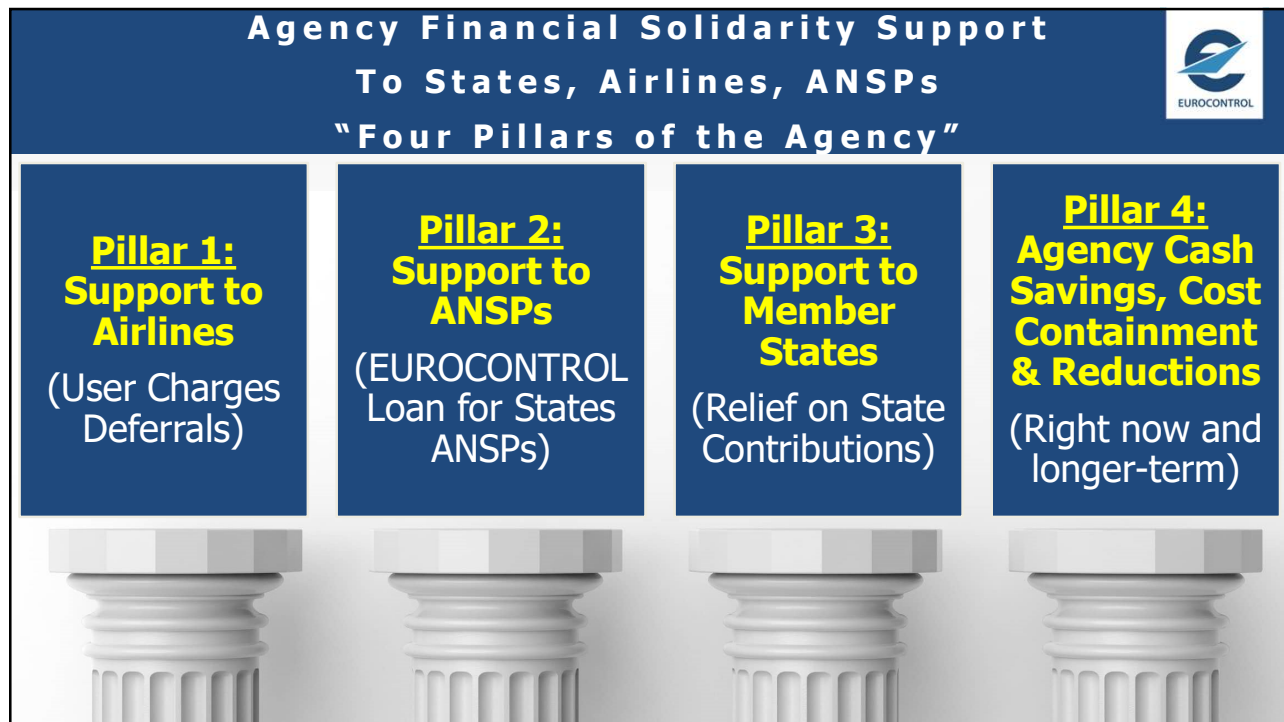
## DAILY PUBLICATIONS











**Agency Financial Solidarity Support  
To States, Airlines, ANSPs  
"Four Pillars of the Agency"**





**Pillar 2:  
Support to  
ANSPs**  
(EUROCONTROL  
Loan for States  
ANSPs)

➔

Securing a loan of up  
to €1.3 billion to fund  
minimal ATM services

**Agency Financial Solidarity Support  
To States, Airlines, ANSPs  
"Four Pillars of the Agency"**



Target proposal of  
19% saving  
over 12 months

←

**Pillar 3:  
Support to  
Member  
States**  
(Relief on State  
Contributions)

Agency Financial Solidarity Support  
To States, Airlines, ANSPs  
"Four Pillars of the Agency"

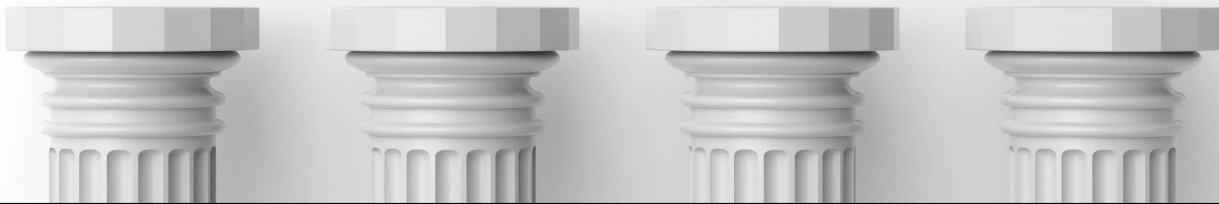


*Target proposal*

- *Short term: €28m (2020)*
- *Medium term: Staff departures*
- *Long term: Strategic review*

**Pillar 4:  
Agency Cash  
Savings, Cost  
Containment  
& Reductions**

(Right now and longer-term)



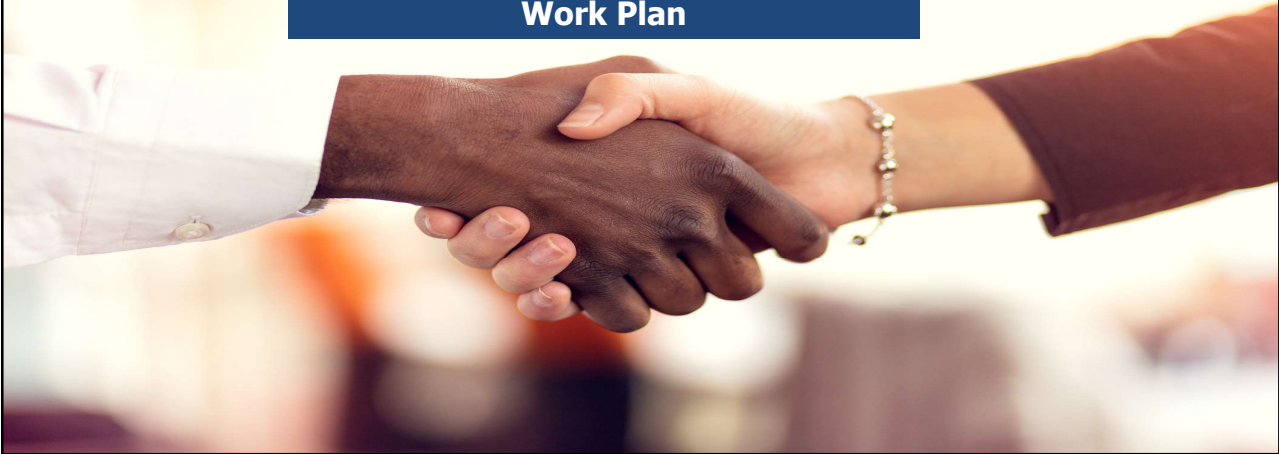
EUROCONTROL  
&  
ICAO



# EUROCONTROL / ICAO



**Strong Partnership built up over many years**  
**MoC 1996 – Exchange of letters / Work Plan**



# EUROCONTROL Contribution



COORDINATED WITH

ATMRPP, ATMOPS, CEAP, ADOP, CP, FLOPSP, FSMP, IMP, METP, EASPG, AWOOG, FMG, PBN TF, RDGE, VOLCEX etc

Pilot: Time Based Separation (TBS)

GADSS ConOps, GANP etc

SWIM/AIM, PBN, CNS, FUA etc

HQ/ANB

EUR RMA, SSR Code Management, Frequency function, PBCS monitoring, ASBU implementation monitoring, ATS Route and Network development support etc.

- 14+ Panels/Committees HQ
- 19+ Regional

• Direct Entry SARP

• Multi disciplinary efforts

• Main events/Campaigns

• Secondment

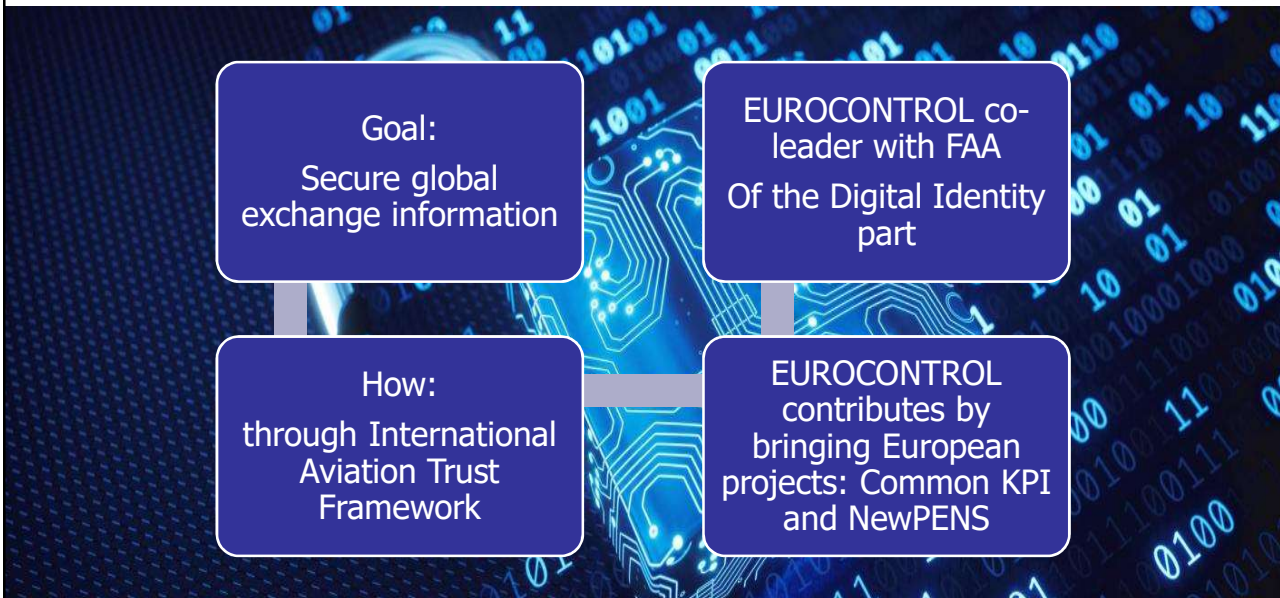
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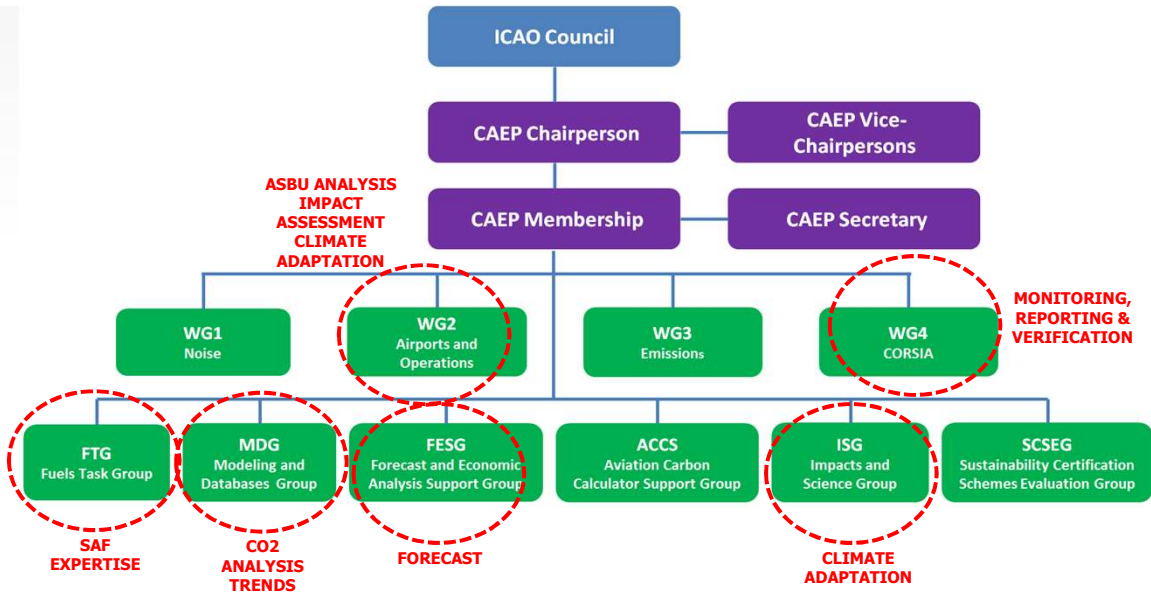
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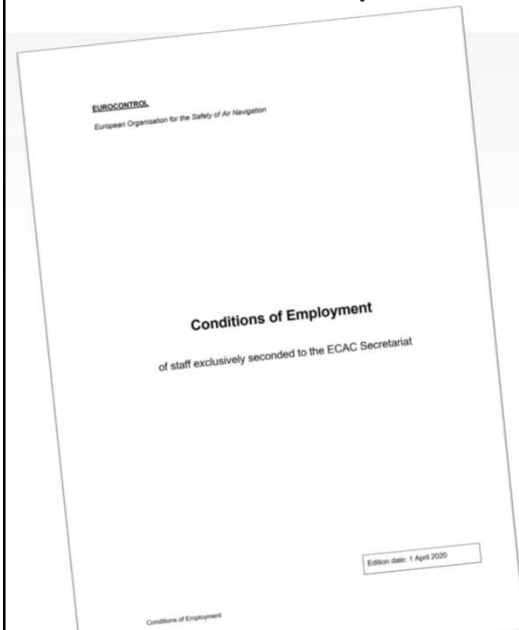
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Other  
Developments



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Effective 1<sup>st</sup> April 2020

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Transition from ICAO underway

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• EUROCONTROL MUAC as a pilot

EUROCONTROL will continue to support SESAR research

SESAR Deployment  
↓  
EUROCONTROL NM Infrastructure Manager

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# EUROCONTROL - The Way Ahead



Support the **COVID19 Recovery**

Support **Single European Sky** & coordinate with partners

Support States & Industry – Best **Technical** expertise and coordination

Help delivery **Sustainable** approach to aviation



## SUPPORTING EUROPEAN AVIATION



Thank you  
Eamonn Brennan, Director General  
[@eurocontrolDG](https://twitter.com/eurocontrolDG)

