

Supporting  
European  
Aviation



# Aviation Noise & Emissions Symposium 2021

## Climate Change and Aviation: Opportunities in the midst of adversity

### The Road to Aviation Recovery - A European Perspective

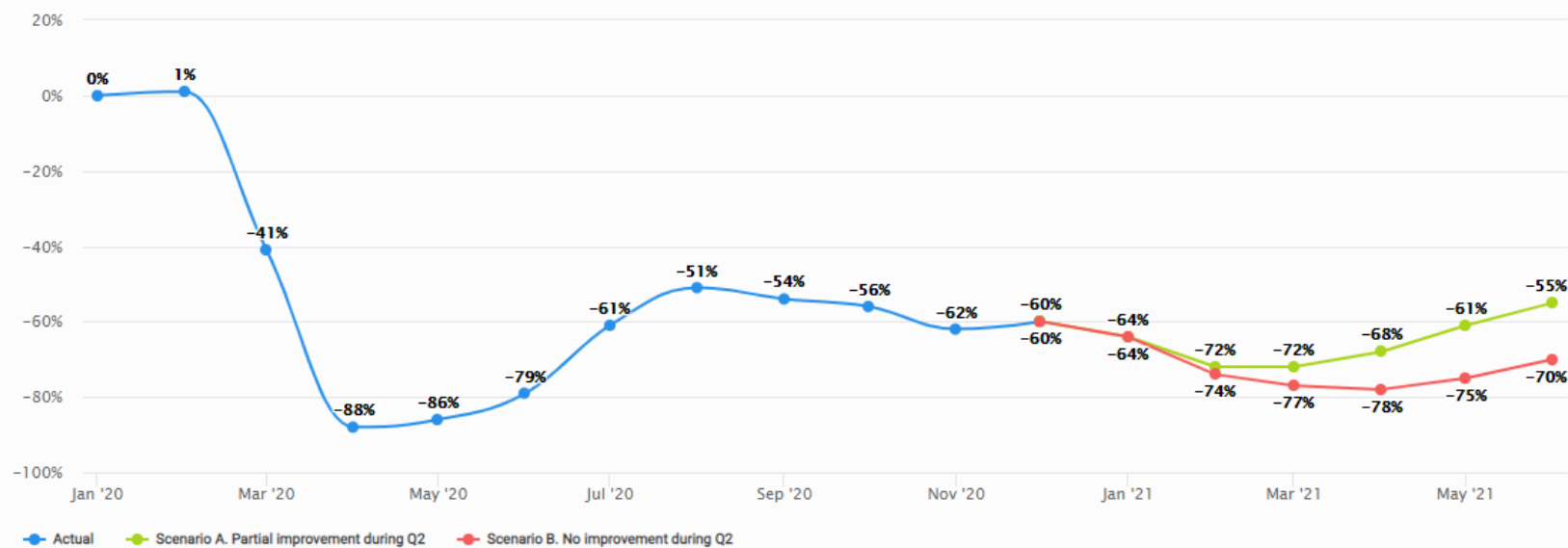
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# EUROCONTROL Air Traffic Scenarios

EUROCONTROL Draft Traffic Scenarios - 28 January 2021 (base year 2019)



© EUROCONTROL

## EUROCONTROL Air Traffic Scenarios

### Jan-Jun 2021 Vs 2019

	Jan	Feb	Mar	Apr	May	June
Scenario A. Partial improvement during Q2	-64%	-72%	-72%	-68%	-61%	-55%
Scenario B. No improvement during Q2	-64%	-74%	-77%	-78%	-75%	-70%

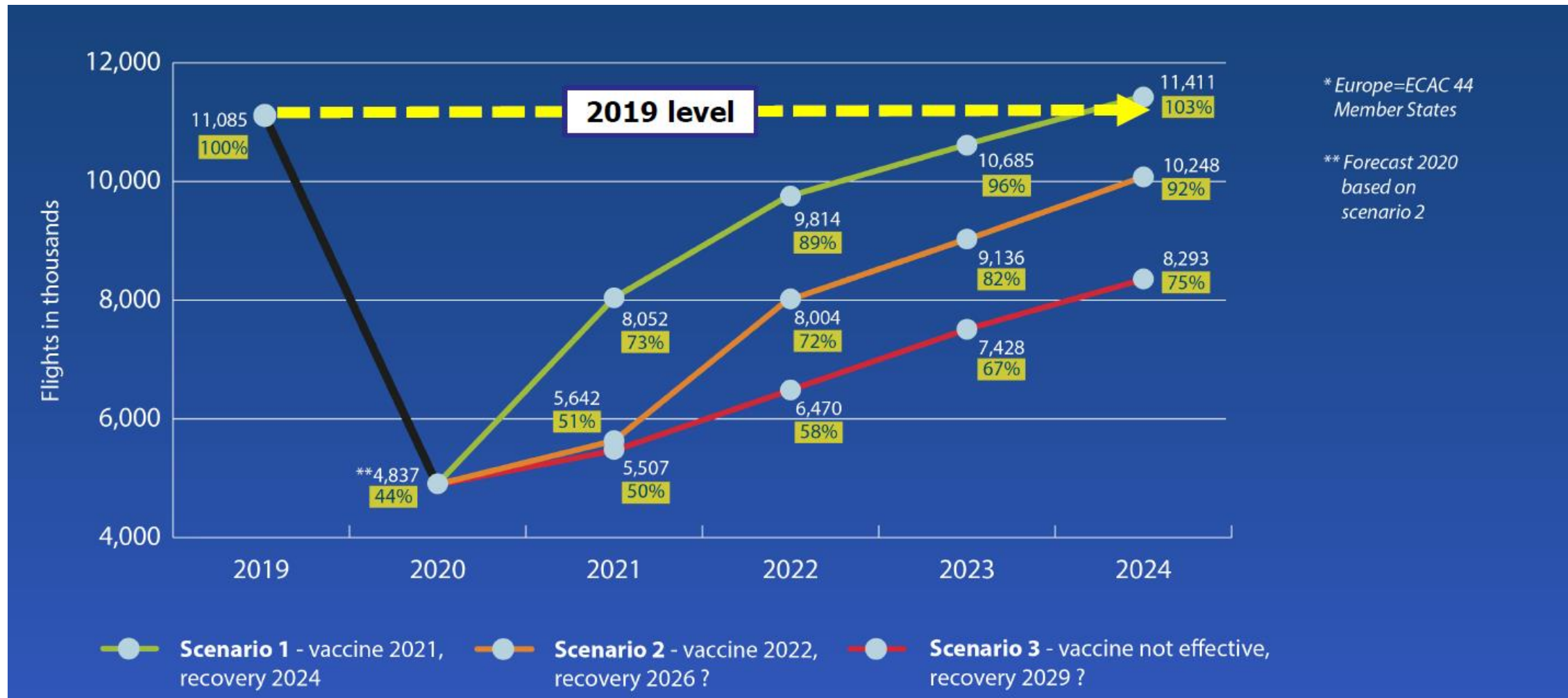
## EUROPEAN AVIATION: 2020 HEADLINE IMPACTS

- €56.2 billion net** losses for airlines, airports & ANSPs
- 1.7 billion** fewer passengers
- Massive negative impacts on European flights:
  - 5.0 million** flights 2020 vs 11.1 million 2019 = annual loss of **6.1 million** flights
  - intra-European traffic **54% down**
  - Europe-Rest of the World traffic **59% down**
  - low-cost carrier flights **62% down**
  - scheduled carrier flights **59% down**
- Markets down by **40%-73%**:
  - 1.3 million** flights less in the UK (-61%)
  - 1.2 million** flights less in Germany (-56%)
  - 1.0 million** flights less in Spain (-61%)
  - 0.9 million** flights less in France (-54%)
  - 0.8 million** flights less in Italy (-60%)
- Leading aviation groups down by **53%-67%**:
  - Lufthansa Group **-67%** daily average flights (2020: **1,102** flights, 2019: 3,295)
  - Ryanair **-59%** flights (2020: **951**, 2019: 2,323)
  - Air France-KLM **-55%** flights (2020: **920**, 2019: 2,053)
  - IAG **-65%** flights (2020: **825**, 2019: 2,342)
  - Turkish Airlines flights **-53%** (2020: **626**, 2019: 1,331)
  - easyJet **-67%** flights (2020: **547**, 2019: 1,671)
- 51%** of aircraft in Europe grounded at year-end (**4,118** of 8,048 airframes)
- 191,000** announced direct job losses in Europe



# Five-Year Forecast Scenario for Europe 2020-2024

Optimistic and pessimistic scenarios COVID-19 recovery were explored





PROTECTING NATURE

PROMOTING  
CLEAN  
ENERGY

CLIMATE  
PACT AND CLIMATE  
LAW

INVESTING IN MORE  
SUSTAINABLE,  
SMARTER MOBILITY

STRIVING  
FOR GREENER  
INDUSTRY

ELIMINATING  
POLLUTION

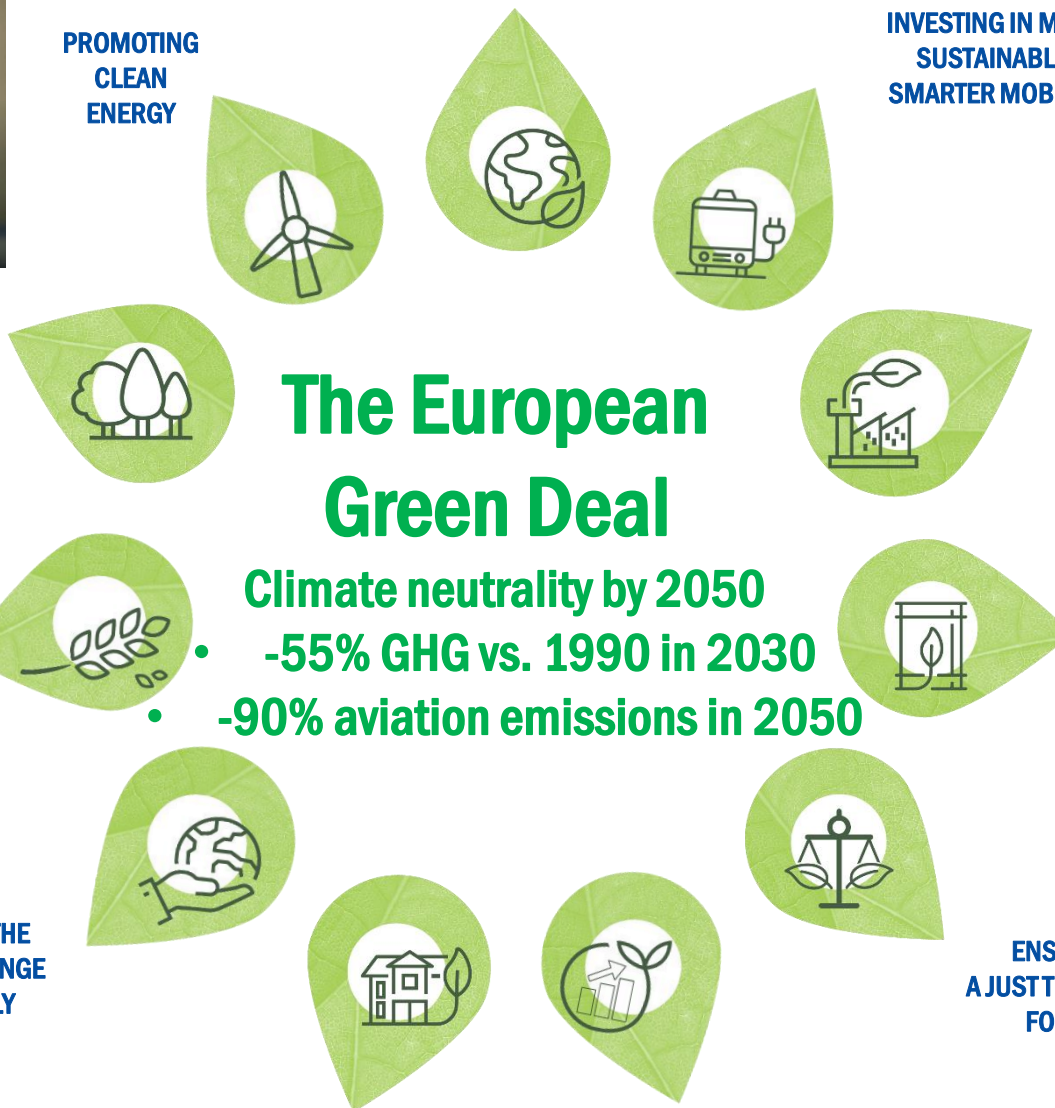
ENSURING  
A JUST TRANSITION  
FOR ALL

FINANCING  
GREEN  
PROJECTS

MAKING  
HOMES ENERGY EFFICIENT

LEADING THE  
GREEN CHANGE  
GLOBALLY

FROM FARM  
TO FORK



Source: European Commission

SUSTAINABLE & SMART  
**MOBILITY STRATEGY**



“

**Through the implementation of this strategy, we will create an irreversible shift to zero-emission mobility while making our transport system more efficient and resilient.**

EUROPEAN COMMISSIONER FOR MOBILITY AND TRANSPORT ADINA  
**VĂLEAN**

”



European  
Commission

Mobility and Transport

## SUSTAINABLE & SMART MOBILITY STRATEGY



# KEY ELEMENTS

- **Three objectives:** making the European transport system more **sustainable, smart and resilient**
  - **10 flagship areas** with key milestones
  - **Action plan** with a list of concrete policy actions
- 
- **ReFuelEU Aviation**
  - Incentives for **cleaner & quieter aircraft**
  - **Clean airports**
  - **Single European Sky**
  - **'Drone Strategy 2.0'**
  - **CORSIA to internalise cost of CO2 emissions** for aviation globally
  - **Renew partnerships for aviation:** SESAR and Clean Aviation Partnership
  - **Empowering consumers:** Developing an environmental label for aviation



Source: European Commission



# AVIATION SUSTAINABILITY CHALLENGES



## FINAL REPORT

**Updated analysis of the non-CO<sub>2</sub> climate impacts of aviation and potential policy measures pursuant to the EU Emissions Trading System Directive Article 30(4)**



Contract reference: MOVE/E1/SER/2019-475/SI2.817062  
Date: September 2020





# Collaboration and Optimisation

## Operational excellence programme

Let's make it happen!



**European CCO / CDO Action Plan**  
Released 6<sup>th</sup> November 2020

<https://www.eurocontrol.int/publication/european-cco-cdo-action-plan>

1,200 network restrictions  
removed during the  
pandemic.



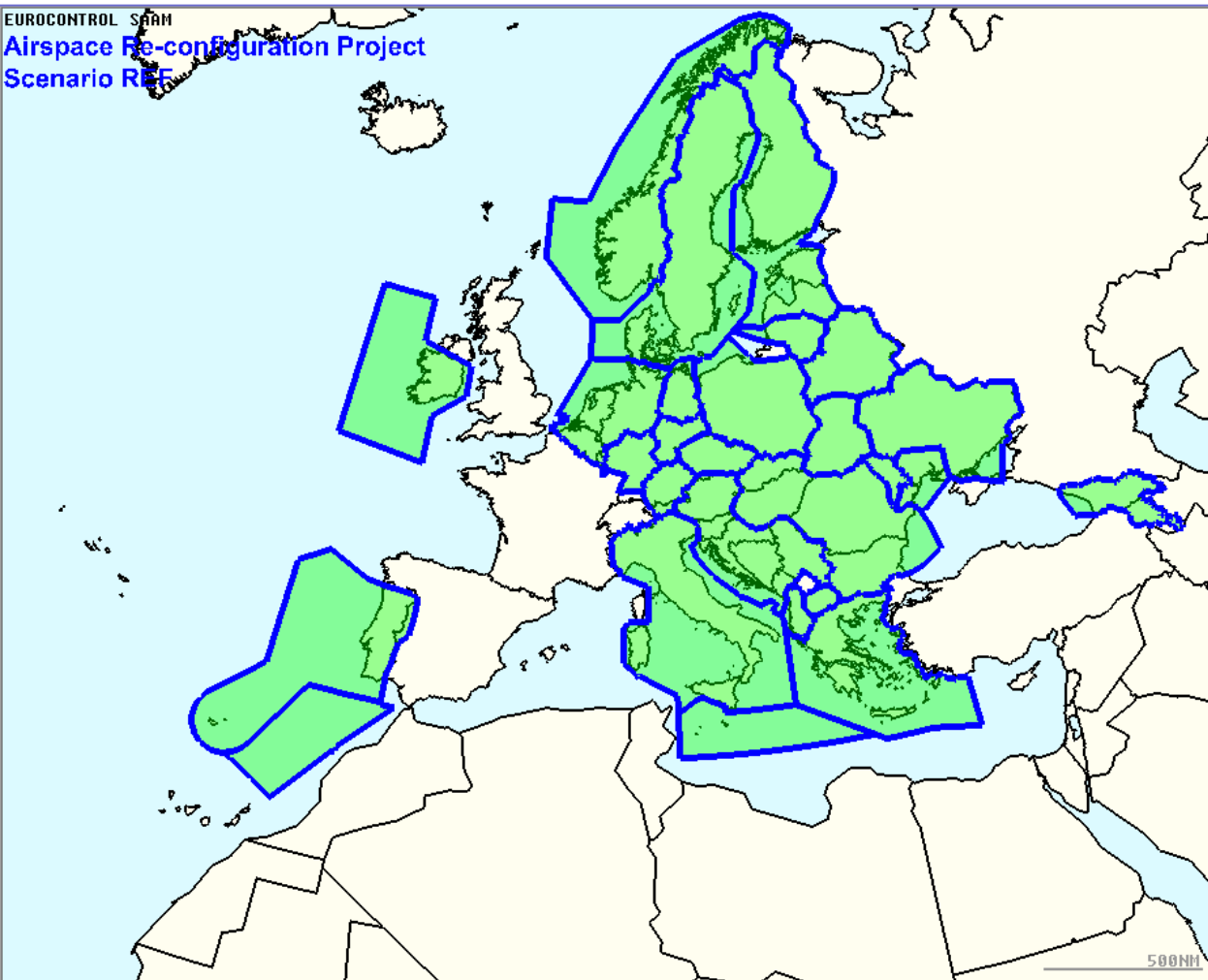
26,000 nautical miles  
per day are saved



# Airspace Re-configuration - High Level Assessment

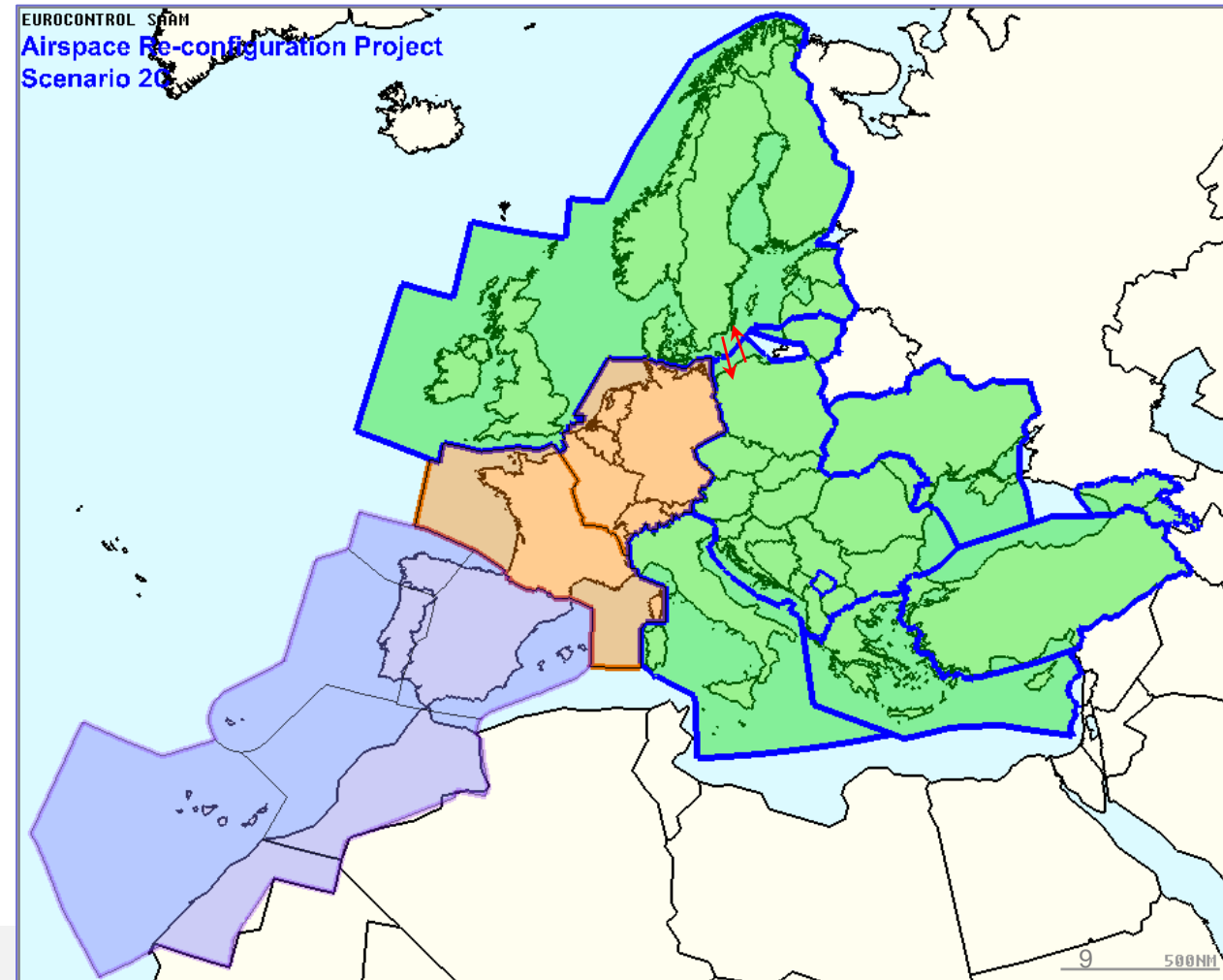
(Comparison btwn the Current situation and SCEN 2C)

## Current situation



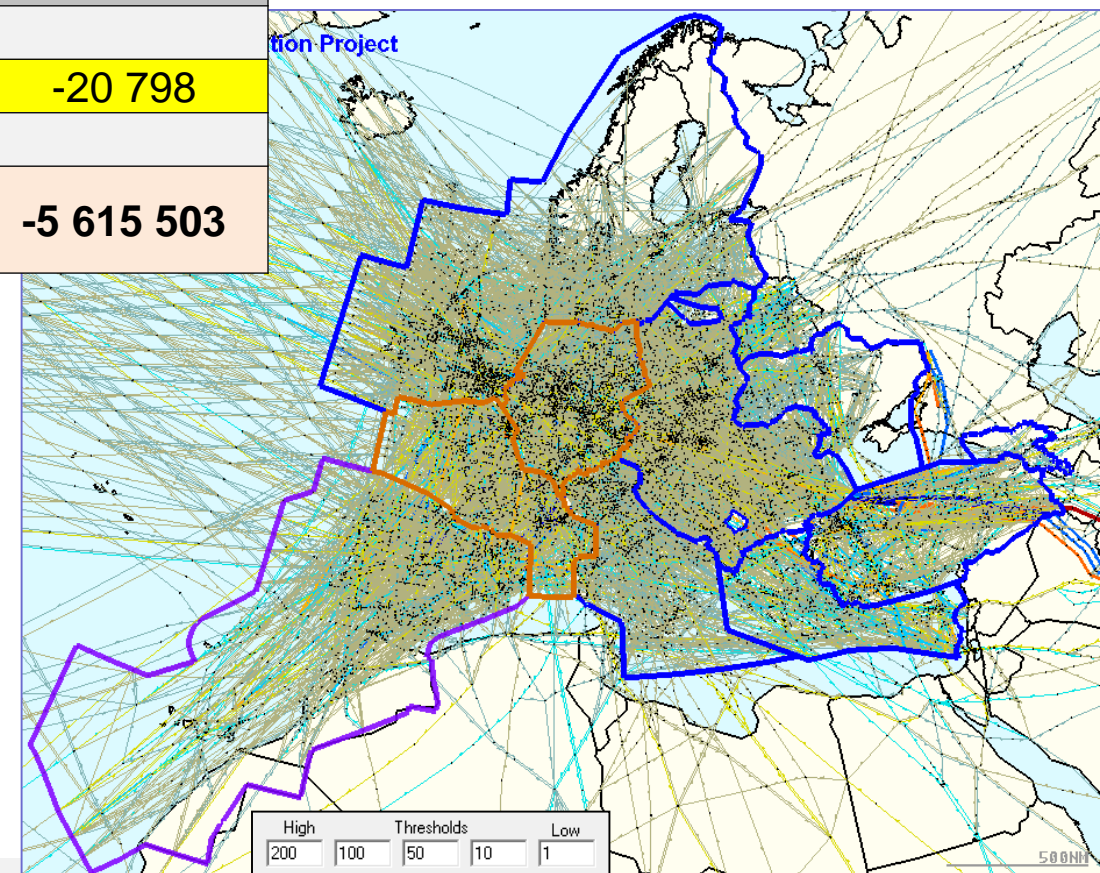
## SCEN 2C

West Area and East Area



# Traffic and flight efficiency comparison

Scenario Economy (Potential gains/losses)					
Total impacted flights	Length (NM)	Time (min)	Fuel (kg)	CO2 (kg)	NOx (kg)
Daily (28 JUN 2019)					
20 516	-221582	-30 976	-1 491 992	-4 714 755	-20 798
Yearly					
5 539 320	-59 827 247	-8 363 531	-402 837 966	-1 272 983 942	-5 615 503



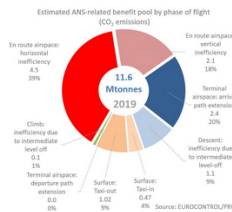
# Aviation Intelligence Portal

## Efficiency and environment

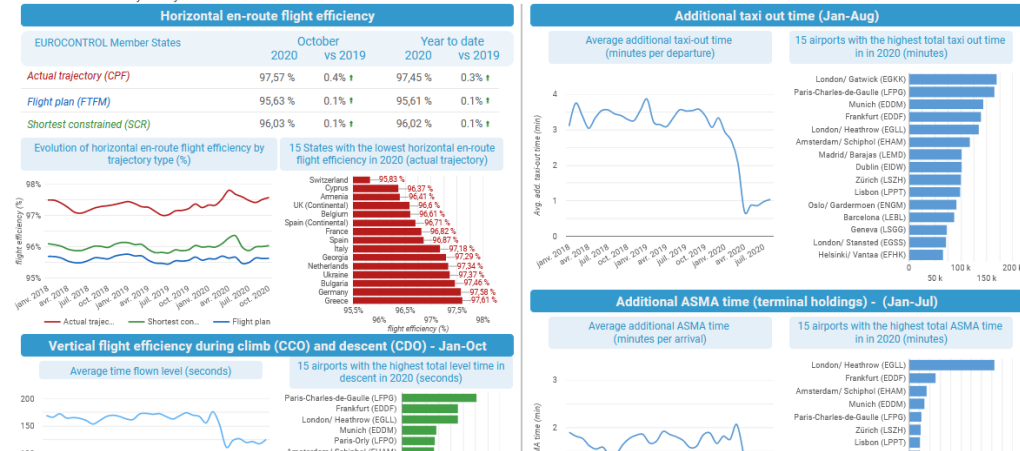
The ANS related impact on the environment is closely linked to operational performance (fuel efficiency) which is largely driven by inefficiencies in the flight trajectory and associated fuel burn (and emissions). The current best estimate for 2019 is that ANS can influence approximately 6% (11.6 Mt) of the total gate-to-gate fuel burn ("benefit pool"). The overview below shows a consolidated view of the main components. For more detailed analysis, please consult also the respective sections on this page:

- [Horizontal en-route flight efficiency](#)
- [Vertical flight efficiency](#)
- [Terminal holdings \(ASMA\)](#)
- [Taxi out efficiency](#)

The underlying data of the results shown in the dashboard below are available for download in our [data repository](#).



Please note that the analysis may take a few moments to load. The dashboard is best viewed in Chrome or Firefox.



<https://ansperformance.eu/>

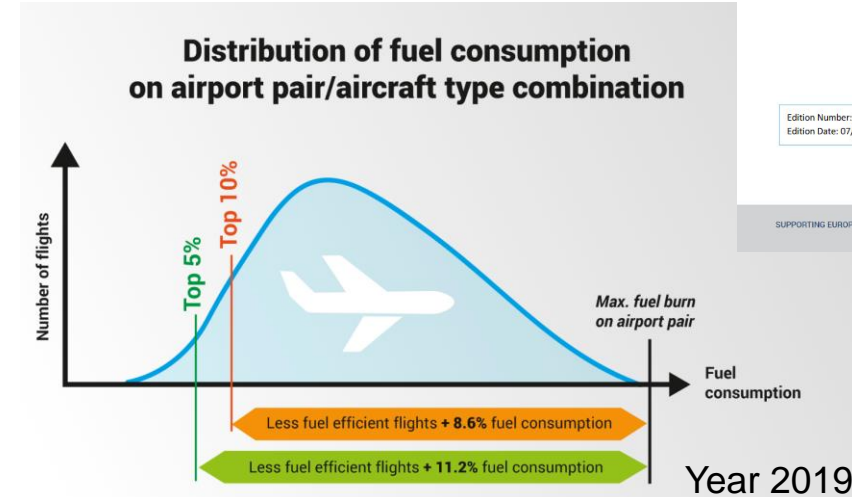
*“In 2020, aircraft operators have been flying trajectories that consumed around 5% less fuel than in 2019 (8.6% versus 3.5%)”*

## Environmental Assessment: European ATM Network Fuel Inefficiency Study



[www.eurocontrol.int](http://www.eurocontrol.int)

Edition Number: 01-01  
 Edition Date: 07/December/2020



<https://www.eurocontrol.int/publication/environmental-assessment-european-atm-network-fuel-inefficiency-study>



# EU Aviation Maps a Sustainable, Post-Crisis Future in Round Table Report

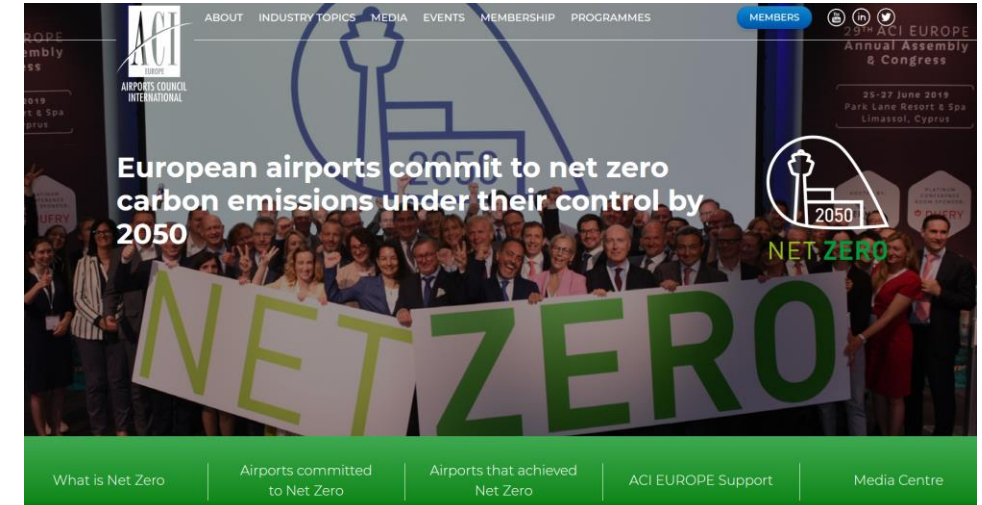
The strategy needed to navigate this crisis and allow for a sustainable recovery identifies joint actions in four domains:

- Restoring the public's confidence in air travel is an absolute priority and an urgent prerequisite for the start of the recovery
- A comprehensive Aviation Relief Programme is needed at European level to rebuild the sector and to preserve the Aviation Single Market
- An EU Pact for Sustainable Aviation is required, setting out the steps necessary to guarantee a cleaner and quieter aviation system that puts the interests of the people and the aviation workers first
- A set of accompanying measures necessary to ensure a resilient sector capable of withstanding future crises.



All stakeholders, including policy makers, to work together to reach net zero CO<sub>2</sub> emissions by 2050

# Aviation Community – European Climate Targets



LAUNCHING EARLY 2021

**A ROUTE TO NET ZERO  
EUROPEAN AVIATION**

# The Road to Aviation Recovery - A European Perspective

“Aviation offers irreplaceable benefits today and the promise of a sustainable transport tomorrow”

*October 2020- Airbus*





# Questions?

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