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Die Europäische Ausrichtung der Luftfahrt

Horizon Europe and European Partnerships:
Bottom up and top down Research 2020 - 2027

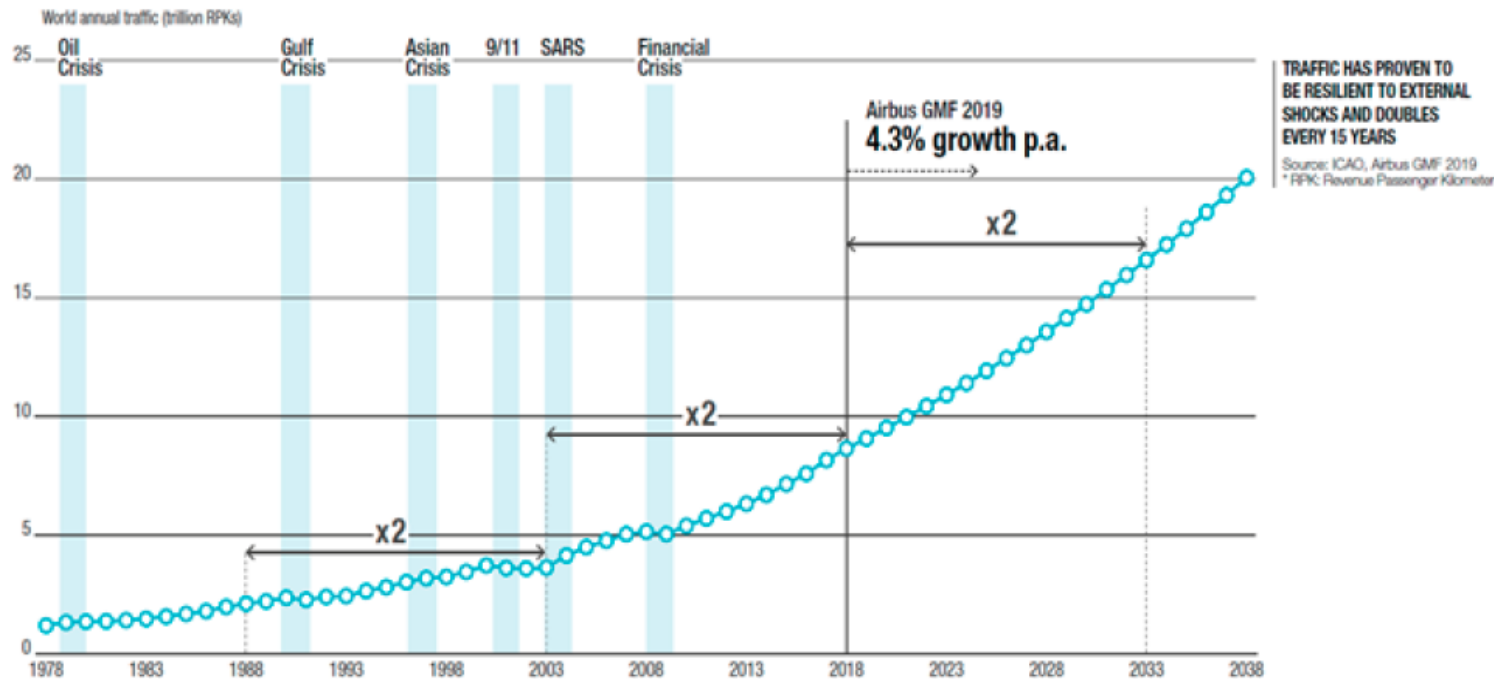
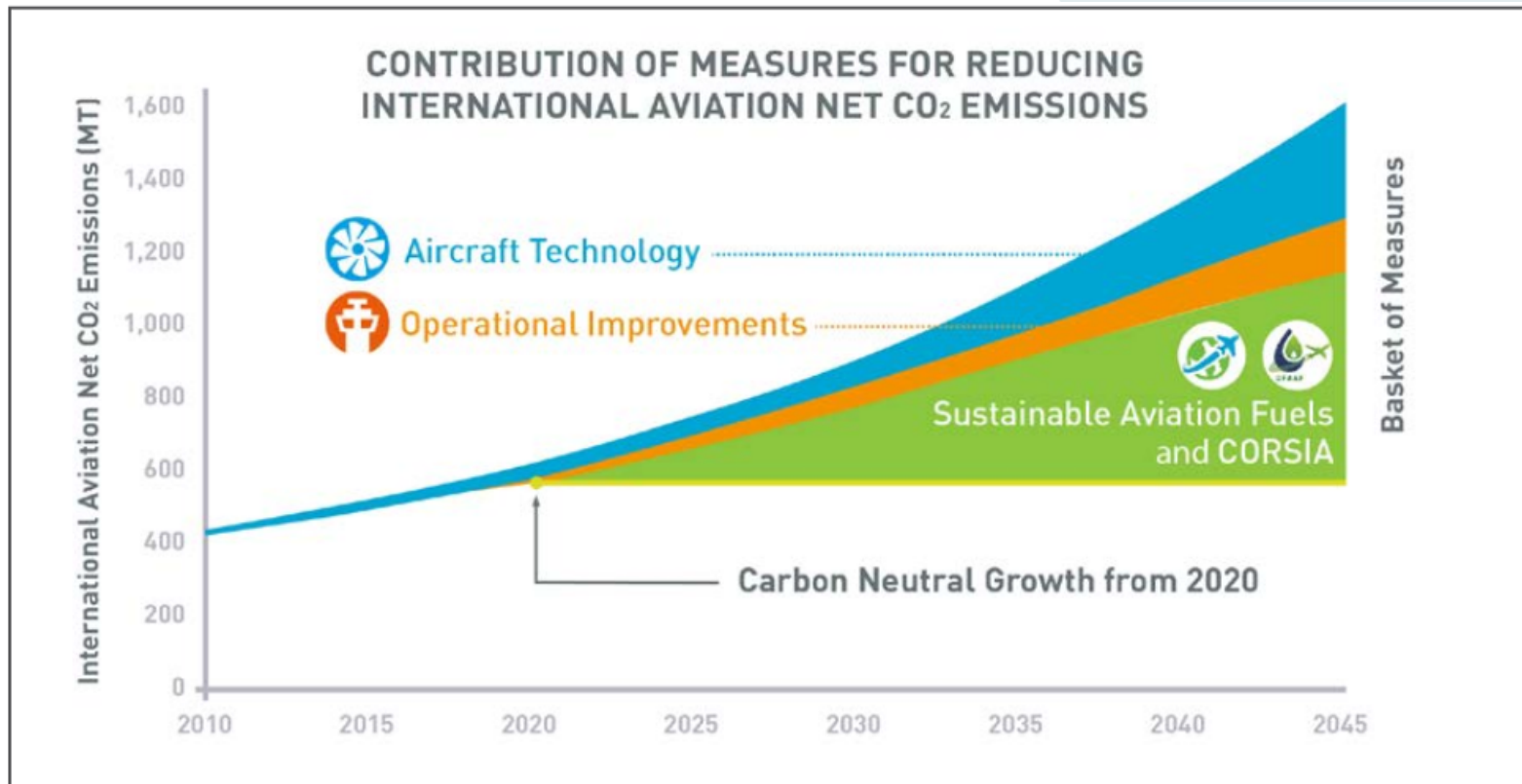


Figure 1-2: World Annual Traffic Forecast 2019 – 2038. (Source: Airbus)



Collaborative Research under HEU

Aim towards transformative low TRL (1-4) technologies in line with climate neutrality by 2050

Main expected impacts:

- Up to 30% reduction in fuel burn
- Disruptive technologies e.g. hybrid electric architectures, ultra-high efficient engines, new aircraft configurations, new energy carriers
- Significant lower local air-pollution and noise
- Protect the passenger and increase the resilience of the aviation ecosystem
- Support recovery from COVID crisis

European Partnerships

- **Clean Aviation**
- **Integrated Air Traffic Management**

European Partnership for Clean Aviation

Vision: to develop low and zero emission technologies to accelerate the transition towards climate neutrality

- Hybrid electric and full electric architectures
- Ultra-efficient aircraft architectures
- hydrogen-powered aircraft

EPCA Implementation Timeline

	2020						2021												2022					
	Q3			Q4			Q1			Q2			Q3			Q4			Q1			Q2		
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Draft SRIA provided to EC	█																							
EC Template provided to EC																								
Preparation of Draft MoC	█	█	█																					
Call for Ideas / Investors			█	█	█																			
MoC and Letter of Commitment			█	█	█	█	█	█	█															
Update SRIA							█	█	█															
Elaboration of initial programme architecture				█	█	█	█	█	█															
Preliminary GB i.e. FMs and pre-commitments				█	█	█	█	█	█															
Preparation of 1st WP 2021-22 (incl. topics)									█	█														
1st GB (to adopt WP & Call)													█	█	█	█	█							
Call 1													█	█	█	█	█	█	█	█	█	█	█	
Evaluation & adoption of call results [GB]																		█	█	█	█	█	█	
Start of technical activity ('at own risk')																								
Grant preparation, signature & pre-finance																		█	█	█	█	█	█	
Monitor project activity																		█	█	█	█	█	█	

Best case scenario

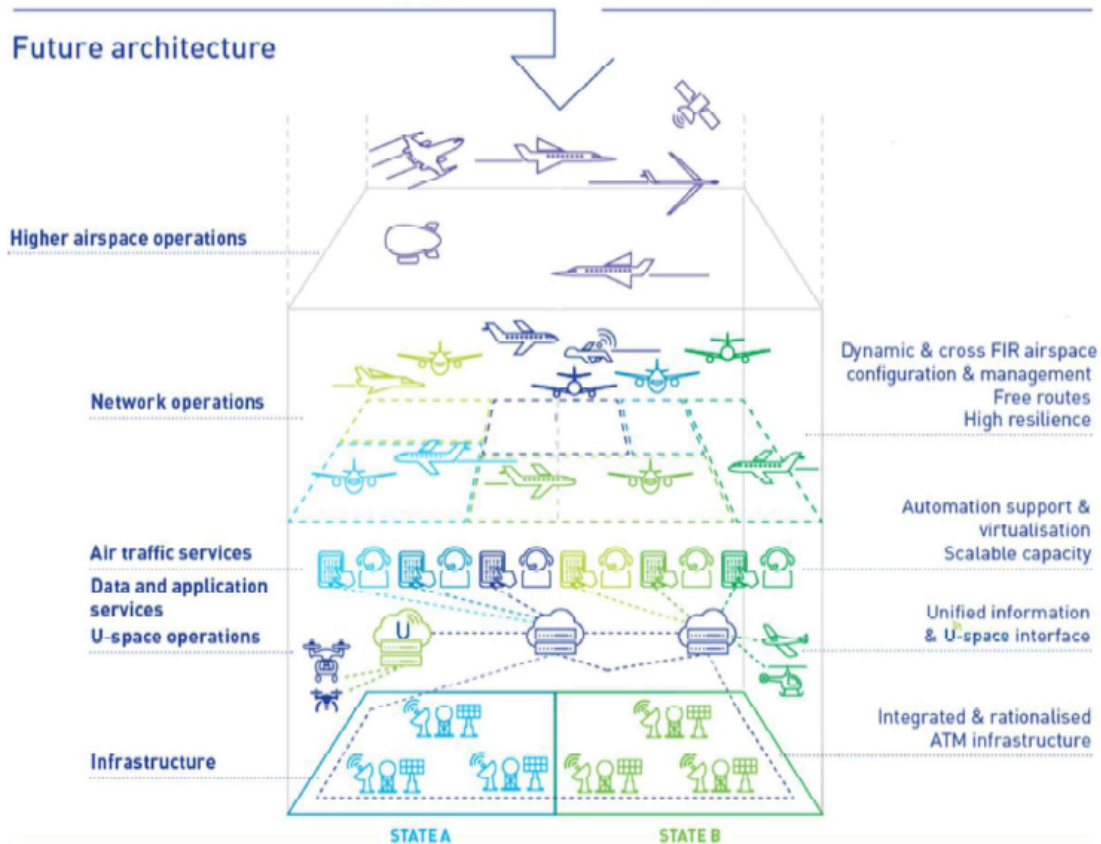
European Partnership on Integrated Air Traffic Management

Vision: to develop a modernized ATM to reduce congestion and reduce environmental impact through the Digital European Sky.

based on European ATM Master Plan

Goals:

- enable a three-fold increase in capacity
- improve safety by factor 10
- enable 10% reduction of environmental impact
- Reduce cost per flight by 50%



EU Initiatives and Strategies

- A hydrogen strategy for a climate-neutral Europe
- ReFuelEU Aviation – Sustainable Aviation Fuels initiative