



ALBATROSS

The most energy efficient flying bird

07 December 2021



founding members



AIRBUS

AIRFRANCE

austro
AIR SERVICE



LUF



Lufthansa

novair

SAS

Schiphol
Group

SWISS

swedavia
SWEDISH AVIATION
AUTHORITY

THALES
Building solutions for the world

WZZ

The project

A Gate to Gate holistic approach implementing mature solutions for quick wins improvements

ALBATROSS

The most efficient flight



ALBATROSS actors



Air Navigation Service Providers:
EUROCONTROL LFV
AUSTROCONTROL DSN



Airports:
Stockholm
Schiphol
Vienna






Airlines:
NOVAIR, AIR FRANCE,
LUFTHANSA, SWISS,
WIZZAIR

Multiple combined solutions for greener flight operations

-  Continuous climb and descent operations
-  Flight trajectory optimization with real-time transmission of four-dimensional trajectory data
-  Sustainable Aviation Fuels as an alternative of fossil fuels
-  Hybrid "TaxiBot" assistance on ground operations

ALBATROSS:

-  Covers all flight phases
-  Involves all relevant stakeholders
-  Addresses operational and technological aspects of Air Traffic Management

The Consortium



Airlines

novair

AIRFRANCE



Lufthansa

Wizz

SWISS

A/C Manufacturer

AIRBUS

System suppliers

THALES

ANSP / Airspace



austro
CONTROL



EUROCONTROL NM



ANSP / Airport platforms



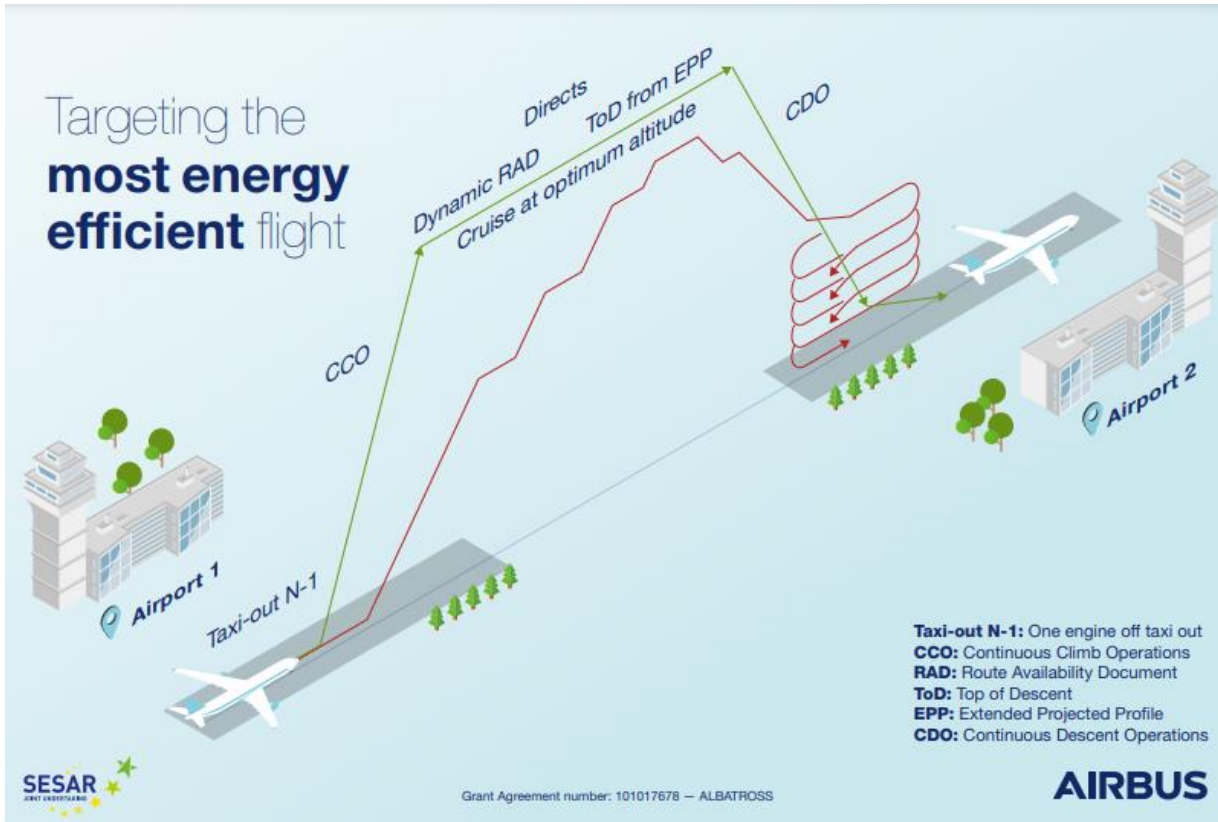
swedavia
SWEDISH AIRPORTS



Research / Support and Taxibot



The “Gate to Gate” Approach



4D Trajectory Based Operations

Dynamic RAD

Performance Based Navigation to ILS

Continuous Climb/Descent Operations

Big Data For Flight Optimization

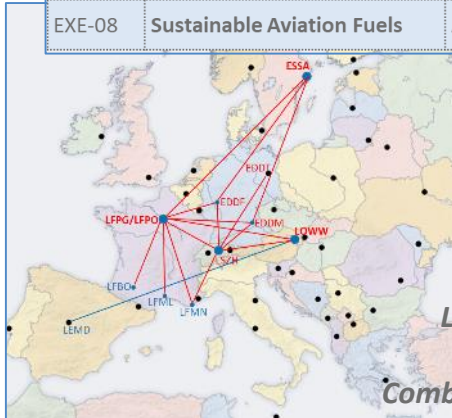
Single Engine Taxi

TaxiBot

Sustainable Aviation Fuels

ALBATROSS Trials

Id	Title	Coordinator	Other Participants
EXE-01	Gate to Gate	Eurocontrol	All Consortium Members
EXE-02	Swedish Cluster	Novair	LFV, Swedavia
EXE-03	LNAS	Swiss	AREC (<i>tbc: DFS externally</i>)
EXE-04	TMA Optimization (Germany)	Lufthansa	DLR
EXE-05	Austrian Cluster	Austro Control	Wizzair, Airbus (Navblue)
EXE-06	French Cluster	Air France	DSNA (<i>other Albatross airlines</i>)
EXE-07	Taxi-Bot	Schiphol Airport	Smart Airport Systems
EXE-08	Sustainable Aviation Fuels	Airbus	Albatross airlines



Local Instances

+

Combined Gate-to-Gate



Dynamic RAD / AFUA
Flight Optimization
with 4D Trajectory Data



Continuous Climb and Descent Operations

- "PBN-to-Final"
- "Relaxed constraints at ATC interfaces"
- Pilot assistance Tools for best vertical profile



Data Science Solutions

- TMA Flows optimization
- Post-ops analysis for "Green" KPIs



Green Taxiing

- TaxiBot
- Single Engine Taxiing



Sustainable Aviation Fuel (Book & Claim)
Hydrogen power supply for ground ATC equipment