

PROJECT

PJ06 ToBeFREE

Trajectory based Free Routing

Funding: European (Horizon 2020)

Duration: Nov 2016 - Dec 2019

Status: Complete

Total project cost: €9,722,503

EU contribution: €5,965,008



Call for proposal: H2020-SESAR-2015-2

[CORDIS RCN : 206255](#)

Objectives:

The Free Routing concept enables Airspace Users (AU) to fly as close as possible to their preferred trajectory, without being constrained by fixed airspace structures or fixed route networks.

Free Routing (FR) implementation represents a step towards a less fragmented European airspace foreseen by Single European Sky (SES) and provides the AUs with the possibility to fly their user preferred routes in accordance with their business needs or mission requirements. FR will result in a seamless airspace enabling more efficient flight, a reduction in AU costs and will promote cheaper travel, increasing personal mobility and trade. In addition, implementing Free Routing Airspace (FRA) will reduce the greenhouse gas emissions that currently contribute to global warming, thereby creating a greener airspace.

FR was addressed within the SESAR 1 programme but additional R&D activities are required to support the implementation of FRA in high and very high complexity airspace (The EU Regulation No 716/2014 mandates FRA above FL 310 from 1 January 2022) and also to extend this implementation below FL310 thereby allowing other AUs to benefit (The European Air Traffic Management Master Plan version 2015 identifies the need for R&D work to support the management of performance-based Free Routing in lower airspace)

The partners in PJ06 will validate both the benefit to AUs and the impact on ATM of this extension of FRA into complex airspace and lower vertical limits through modelling and Real Time Simulations. The results will seek to provide evidence that FRA can be implemented, cost effectively, in all the SES airspace.

The PJ06 Consortium involves key stakeholders of ground industry, Air Navigation Services Providers, universities and EUROCONTROL and includes a wide range of expertise and competence, all committed to delivering high-quality results.

Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

Direction De La Navigation Aérienne

Address:

50, rue Henry Farman
75720 PARIS

France

Organisation Website:

<http://www.aviation-civile.gouv.fr>

EU Contribution: €635,495

Partner Organisations:

Austro Control Osterreichische Gesellschaft Fur Zivilluftfahrt Mbh

Address:

WAGRAMER STRASSE 19

1220 WIEN

Austria

EU Contribution: €40,523

Polska Agencja Zeglugi Powietrznej

Address:

Ul. Wieszowa 8

02N/A147 Warszawa

Poland

EU Contribution: €420,695

Rizeni Letoveho Provozu Ceske Republiky Statni Podnik

Address:

Navigacni 787

25261 Jenec

Czech Republic

EU Contribution: €0

Skyguide - Swiss Air Navigation Services Ltd

Address:

Route de pré-bois 15-17

CH-1215 Geneva

Switzerland

Organisation Website:

<http://www.skyguide.ch>

EU Contribution: €565,612

Enav

Address:

VIA SALARIA, 16

138 ROME

Italy

Organisation Website:

<http://www.enav.it>

EU Contribution: €346,426

Entidad Pública Empresarial Aeropuertos Españoles Y Navegación Aérea

Address:

Arturo Soria 109
28043 Madrid
Spain

Organisation Website:

<http://www.aena.es>

EU Contribution: €472,665

Valstybes Imone Oro Navigacija

Address:

RODUNIOS KEL 2
02188 VILNIAUS
Lithuania

EU Contribution: €96,535

Eurocontrol - European Organisation For The Safety Of Air Navigation

Address:

Rue De La Fusée 96
1130 Bruxelles
Belgium

EU Contribution: €0

Croatia Control, Croatian Air Navigation Services Ltd

Address:

RUDOLFA FIZIRA 2
10410 VELIKA GORICA
Croatia

EU Contribution: €55,452

Indra

Address:

Avenida de Bruselas, 35
Alcobendas Madrid
Spain

Organisation Website:

<http://www.indra.es>

EU Contribution: €376,530

Thales Las France Sas

Address:

Avenue Charles Lindbergh 3
94150 Rungis
France

EU Contribution: €270,568

Letove PrevadzkoVe Sluzby Slovenskej Republiky, Statny Podnik

Address:

IVANSKA CESTA 93
823 07 BRATISLAVA
Slovakia

EU Contribution: €0

Udaras Eitliochta Na Heireann The Irish Aviation Authority

Address:

D'OLIER STREET 11-12 THE TIMES BUILDING
D02 T449
DUBLIN
Ireland

EU Contribution: €0

Leonardo - Societa Per Azioni

Address:

Piazza Monte Grappa 4
195 Roma
Italy

EU Contribution: €265,774

Naviair

Address:

NAVIAIR ALLE 1
2770 KASTRUP
Denmark

EU Contribution: €85,174

Luftfartsverket

Address:

HOSPITALSGATAN 30
602 27 NORRKOPING
Sweden

Organisation Website:

<http://www.lfv.se>

EU Contribution: €42,655

Technologies:

Aircraft operations and safety
Trajectory Based Flight Operations

Development phase: Implementation

STRIA Roadmaps: Network and traffic management systems

Transport mode: Air transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Environmental/Emissions aspects, Safety/Security, Digitalisation

Geo-spatial type: Other