

PROJECT

PJ02 EARTH

Increased Runway and Airport Throughput

Funding: European (Horizon 2020)

Duration: Dec 2016 - Mar 2020

Status: Complete

Total project cost: €37,430,159

EU contribution: €15,592,783



Call for proposal: H2020-SESAR-2015-2

[CORDIS RCN : 206844](#)

Background & policy context:

EUROCONTROL's 2013 Challenges of Growth Report "by 2035 more than 20 airports are operating at 80% or more of capacity for 6 or more hours per day ... drives ATFCM airport delay up from around 1 minute/flight in 2012 to 5-6 minutes in 2035."

Whereas social, economic and environmental constraints impede building new runways, secondary airports are hindered by technical, infrastructure and meteorological limitations from absorbing additional traffic.

Objectives:

EARTH unites key European aviation partners combining the right expertise and investment to address issues and drive deployment of operational and technical improvements to enhance infrastructure, increase traffic throughput whilst preserving safety and environment.

Aligned with the ATM-Masterplan, EARTH focuses on separation and procedures to improve runway and airport throughput considering wake-vortex, weather, environment and noise whilst taking account of different traffic demand, future aircraft capability and airport configurations.

Methodology:

Partners validate reduction of arrival/departure separations delivered through optimised runway delivery support tools and study new procedures designed to reduce environmental and noise impact whilst confirming increased runway throughput enabled by ground and on-board space-based augmented navigation systems including GBAS and SBAS.

Partners investigate independent rotorcraft operations, fixed-wing and helicopter non-interfering simultaneous approaches, on-board and low-cost ground technology improving access to secondary airports in low visibility, optimising single and multi-runway operations in mixed-mode and dependent runway configurations and enhanced terminal airspace operations through curved approaches.

EARTH supports the SESAR Deployment regulation and addresses European concerns on environmental sustainability, reduction of noise and fuel consumption and brings low cost improved access to regional airports making regions economically attractive with potential for new jobs.

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:

European Organisation For The Safety Of Air Navigation

Eurocontrol - European Organisation For The Safety Of Air Navigation**Address:**

Rue De La Fusée 96
1130 Bruxelles
Belgium

EU Contribution: €0**Partner Organisations:****Airbus****Address:**

2 ROND POINT EMILE DEWOITINE
31700 BLAGNAC
France

Organisation Website:

<http://www.airbus.com>

EU Contribution: €405,650**Austro Control Osterreichische Gesellschaft Fur Zivilluftfahrt Mbh****Address:**

WAGRAMER STRASSE 19
1220 WIEN
Austria

EU Contribution: €52,375**Polska Agencja Zeglugi Powietrznej****Address:**

Ul. Wieszowa 8
02N/A147 Warszawa
Poland

EU Contribution: €129,796**Saab Ab****Address:**

Broederna Ugglas Gata
58188 LINKOEPING
Sweden

Organisation Website:

<http://www.saab.com>

EU Contribution: €0**Rizeni Letoveho Provozu Ceske Republiky Statni Podnik****Address:**

Navigacni 787
25261 Jenec
Czech Republic

EU Contribution: €0**Stichting Centrum Voor De Ontwikkeling Van Transport En Logistiek In Europa**

Address:

Van Nelleweg 1
3044 BC Rotterdam
Netherlands

Organisation Website:

<http://www.cetle.org>

EU Contribution: €16,459

Flughafen Zuerich Ag -Unique**Address:**

Flughafen Kloten
8058 ZURICH-AIRPORT
Switzerland

EU Contribution: €8,519

Swedavia Ab**Address:**

(Swedavia)
190N/A45 Stockholm -Arlanda
Sweden

EU Contribution: €17,037

Stiftelsen Sintef**Address:**

Strindveien
7034 Trondheim
Norway

Organisation Website:

<http://www.sintef.no>

EU Contribution: €93,604

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: €139,422

Direction De La Navigation Aérienne**Address:**

50, rue Henry Farman
75720 PARIS
France

Organisation Website:

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

EU Contribution: €44,013

Enav**Address:**

VIA SALARIA, 16
138 ROME
Italy

Organisation Website:

<http://www.enav.it>

EU Contribution: €205,097

Honeywell Aerospace**Address:**

4 AVENUE SAINT GRANIER
31300 TOULOUSE
France

EU Contribution: €127,350

Entidad Pública Empresarial Aeropuertos Españoles Y Navegación Aérea**Address:**

Arturo Soria 109
28043 Madrid
Spain

Organisation Website:

<http://www.aena.es>

EU Contribution: €142,702

Flughafen Munchen Gmbh**Address:**

NORDALLEE 25
85326 MUNCHEN
Germany

EU Contribution: €0

Valstybes Imone Oro Navigacija**Address:**

RODUNIOS KEL 2
02188 VILNIAUS
Lithuania

EU Contribution: €0

Croatia Control, Croatian Air Navigation Services Ltd**Address:**

RUDOLFA FIZIRA 2
10410 VELIKA GORICA
Croatia

EU Contribution: €0

Aeroports De Paris**Address:**

Boulevard Raspail 291
75014 Paris
France

EU Contribution: €0

Deutsches Zentrum Fr Luft Und Raumfahrt E.v

Address:

Linder Hoehe
51147 KOELN
Germany

Organisation Website:

<http://www.dlr.de>

EU Contribution: €54,053

Avinor As

Address:

DRONNING EUFEMIAS GATE 6
2061 OSLO
Norway

EU Contribution: €11,358

Thales Avs France Sas

Address:

75-77 Avenue Marcel Dassault
33700 Merignac
France

EU Contribution: €55,967

Indra

Address:

Avenida de Bruselas, 35
Alcobendas Madrid
Spain

Organisation Website:

<http://www.indra.es>

EU Contribution: €227,516

Heathrow Airport Limited

Address:

NELSON ROAD THE COMPASS CENTRE HOUNSLOW
LONDON
TW6 2GW
United Kingdom

Organisation Website:

<http://www.heathrowairport.com>

EU Contribution: €11,358

Thales Las France Sas

Address:

Avenue Charles Lindbergh 3
94150 Rungis
France

EU Contribution: €483,535

Nats (En Route) Plc**Address:**

5th Floor South, Brettenham House, Lancaster Place
LONDON
WC2E 7EN
United Kingdom

Organisation Website:

<http://www.nats.co.uk>

EU Contribution: €265,498

Dassault Aviation**Address:**

9, Rond-Point des Champs-Élysées - Marcel Dassault
75008 PARIS
France

Organisation Website:

<http://www.dassault-aviation.com>

EU Contribution: €30,815

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: €285,537

Naviair**Address:**

NAVIAIR ALLE 1
2770 KASTRUP
Denmark

EU Contribution: €0

Luftfartsverket

Address:

HOSPITALSGATAN 30
602 27 NORRKOPING
Sweden

Organisation Website:

<http://www.lfv.se>

EU Contribution: €354,944

Airtel Atn Limited

Address:

The Forum, Glashule Road 29
N/A
Glashule
Ireland

Organisation Website:

<http://www.airtel-atn.com>

EU Contribution: €0

Schiphol Nederland B.v.

Address:

Evert Van De Beekstraat 202
1118CP Luchthaven Schiphol
Netherlands

EU Contribution: €0

Technologies:

Aircraft operations and safety
Future-proof airport

Development phase: Validation

STRIA Roadmaps: Network and traffic management systems, Infrastructure

Transport mode: Air transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Societal/Economic issues

Geo-spatial type: Infrastructure Node