

HORIZON
2020

Artificial Intelligence Solutions to Meteo-Based DCB Imbalances for Network Operations Planning

Fact Sheet

Project Information

ISOBAR

Grant agreement ID: 891965

[Project website](#) 

DOI

[10.3030/891965](https://doi.org/10.3030/891965) 

Project closed

EC signature date

17 April 2020

Start date

1 June 2020

End date

30 November 2022

Funded under

SOCIETAL CHALLENGES - Smart, Green And Integrated Transport

Total cost

€ 2 609 230,00

EU contribution

€ 1 908 797,50

Coordinated by

CENTRO DE REFERENCIA
INVESTIGACION DESARROLLO
E INNOVACION ATM, A.I.E.



Spain

This project is featured in...



Bringing intelligent and trustworthy automation to Europe's aviation sector

Project description

Predicting the weather using artificial intelligence

The EU-funded ISOBAR project aims to exploit Artificial Intelligence and develop five main AI components to support the Demand Capacity Balancing (DCB) supply chain in non-nominal and critical situations: enhancing and anticipating the prediction of convection, better characterising capacity and demand, identifying weather-related imbalances between capacity and demand and selecting capacity-demand mitigation measures at local and network levels. The project will be built on four main pillars. First, it will reinforce collaborative Air Traffic Flow and Capacity Management (ATFM) processes at pre-tactical and tactical levels into the local and network roles integrating dynamic weather cells. Second, it will characterise the demand and capacity imbalances. Third, it will set up a user-driven mitigation plan. Ultimately, the project will develop an operational and technical roadmap for the integration of ancillary services into SWIM.

Fields of science (EuroSciVoc)

[natural sciences](#) > [computer and information sciences](#) > [artificial intelligence](#)

[natural sciences](#) > [earth and related environmental sciences](#) > [atmospheric sciences](#) > [meteorology](#)



Keywords

[Network Management](#)

[ATFCM](#)

[Convective Weather](#)

[Weather Forecast and Uncertainty](#)

[Demand Prediction](#)

[Artificial Intelligence Engines](#)

Programme(s)

[H2020-EU.3.4. - SOCIETAL CHALLENGES - Smart, Green And Integrated Transport](#)

MAIN PROGRAMME

[H2020-EU.3.4.7. - SESAR JU](#)

Topic(s)

[SESAR-ER4-16-2019 - Innovation in Network Management](#)

Call for proposal

[H2020-SESAR-2019-2](#) 

[See other projects for this call](#)

Funding Scheme

[RIA - Research and Innovation action](#)

Coordinator



**CENTRO DE REFERENCIA INVESTIGACION DESARROLLO E INNOVACION
ATM, A.I.E.**

Net EU contribution

€ 315 750,00

Total cost

€ 315 750,00

Address

CALLE CAMPEZO, 1, 4º, EDIFICIO 7, PARQUE EMPRESARIAL LAS MERCEDES

28022 Madrid



Spain



Region

Activity type

Research Organisations

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Participants (10)



UNIVERSIDAD CARLOS III DE MADRID

Spain

Net EU contribution

€ 214 408,75

Address

CALLE MADRID 126
28903 Getafe (Madrid)

Region

Activity type

Higher or Secondary Education Establishments

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Total cost

€ 214 408,75



CRANFIELD UNIVERSITY

United Kingdom

Net EU contribution

€ 208 750,00

Address

College Road
MK43 0AL Cranfield - Bedfordshire 

Region

East of England > Bedfordshire and Hertfordshire > Central Bedfordshire

Activity type

Higher or Secondary Education Establishments

Links

- [Contact the organisation](#)  [Website](#) 
- [Participation in EU R&I programmes](#) 
- [HORIZON collaboration network](#) 

Total cost

€ 208 750,00



ECOLE NATIONALE DE L AVIATION CIVILE

 France

Net EU contribution

€ 281 875,00

Address

AVENUE EDOUARD BELIN 7
31400 Toulouse 

Region

Occitanie > Midi-Pyrénées > Haute-Garonne

Activity type

Higher or Secondary Education Establishments

Links

- [Contact the organisation](#)  [Website](#) 
- [Participation in EU R&I programmes](#) 
- [HORIZON collaboration network](#) 

Total cost

€ 281 875,00



EUROCONTROL - EUROPEAN ORGANISATION FOR THE SAFETY OF AIR
NAVIGATION

 Belgium

Net EU contribution

€ 0,00

Address

Rue de la Fusée 96
1130 Bruxelles / Brussel 

Region

Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest > Région de Bruxelles-Capitale/ Brussels Hoofdstedelijk Gewest > Arr. de Bruxelles-Capitale/Arr. Brussel-Hoofdstad

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 
[Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost

€ 552 232,50



DIRECTION DES SERVICES DE LA NAVIGATION AERIENNE

 France

Net EU contribution

€ 0,00

Address

50 RUE HENRY FARMAN
75720 Paris 

Region

Ile-de-France > Ile-de-France > Paris

Activity type

Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)

Links

[Contact the organisation](#)  [Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost

€ 148 200,00



AGENCIA ESTATAL DE METEOROLOGIA

 Spain

Net EU contribution

€ 70 000,00

Address

CALLE LEONARDO PRIETO CASTRO 8

28040 Madrid 

Region

Comunidad de Madrid > Comunidad de Madrid > Madrid

Activity type

Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)

Links

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[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 70 000,00



METEO-FRANCE

 France

Net EU contribution

€ 162 500,00

Address

AVENUE DE PARIS 73

94165 Saint Mande Cedex 

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 162 500,00



SOPRA STERIA GROUP

 France

Net EU contribution

€ 266 250,00

Address

ZAE LES GLAISINS 3 RUE DU PRE FAUCON

74940 Annecy Le Vieux 

Region

Auvergne-Rhône-Alpes > Rhône-Alpes > Haute-Savoie

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 266 250,00



EARTH NETWORKS SL

 Spain

Net EU contribution

€ 147 500,00

Address

AV DIAGONAL 441 PUERTA 7C

08036 Barcelona 

Region

Este > Cataluña > Barcelona

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

Total cost

€ 147 500,00



SWISS INTERNATIONAL AIR LINES AG

 Switzerland

Net EU contribution

€ 241 763,75

Address

MALZGASSE 15

4052 Basel 

Region

Schweiz/Suisse/Svizzera > Nordwestschweiz > Basel-Stadt

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

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[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 241 763,75

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Permalink: <https://cordis.europa.eu/project/id/891965>

European Union, 2025