

PROJECT

Dispatcher3

Innovative processing for flight practices

Funding: European (Horizon 2020)

Duration: Jun 2020 - Nov 2022

Status: Ongoing

Total project cost: €697,875

EU contribution: €640,200



Call for proposal: H2020-CS2-CFP10-2019-01

[CORDIS RCN : 229130](#)

Objectives:

Dispatcher3 will develop a software prototype for the acquisition and preparation of historical flight data in order to give support to the optimisation of future flights providing predictive capabilities and advice to dispatchers and pilots. This will be done considering airline preferences and the impact of flight missions on overall airline objectives. Dispatcher3 focuses on activities prior to departure: dispatching and pilot advice on how to operate the flight.

Dispatcher3 is composed of three layers: data infrastructure, predictive capabilities and advice capabilities.

The data infrastructure will be powered by DataBeacon, a multi-sided and open-source data storage and processing platform. DataBeacon provides private environments, secure data frames, a full-stack artificial intelligence environment and a scalable highly available on-demand cluster. DataBeacon has been developed and successfully been used in other initiatives by members of the consortium. The infrastructure will allow further developments, based on data science techniques, to be built on the pre-processed datasets.

The predictive capabilities will be provided by the development of two modules: data acquisition and preparation, encompassing data wrangling and descriptive analytics, and a predictive model, which will perform target variable labelling and feature engineering, plus the training, testing and validation of machine learning predictive models for targeted airlines' KPIs.

With the same predictions, different advice could be generated considering user policies. The advice capabilities of Dispatcher3 will be provided by a dedicated advice generator module, which will collect all the information from the predictive analytics and build a decision framework, which could be used by dispatchers and pilots.

Dispatcher3 fits within the activities of CS2 Systems ITD WP1.3 ""FMS and functions"" and addresses some of the high-level objectives and challenges for this ITD defined by CS2.

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:

The University Of Westminster Lbg

Address:

Regent Street 309
London

W1B 2UW
United Kingdom

EU Contribution: €188,375

Partner Organisations:

Pace Aerospace Engineering And Information Technology Gmbh

Address:

AM BAHNHOF WESTEND 13
14059 BERLIN
Germany

Organisation Website:

<http://www.pacelab.com>

EU Contribution: €46,025

Vueling Airlines Sa

Address:

PLAZA PLA DE L ESTANY 5 PARQUE DE NEGOCIOS MAS BLA
08820 PRAT DE LLOBREGAT EL BARCELONA
Spain

EU Contribution: €64,750

Universitat Politecnica De Catalunya

Address:

Calle Jordi Girona 31
8034 Barcelona
Spain

Organisation Website:

<http://www.upc.edu>

EU Contribution: €93,500

Fundacion Instituto De Investigacion Innaxis

Address:

Calle Marques De Lozoya 23 5A
28007 Madrid
Spain

EU Contribution: €223,750

Skeyes

Address:

SQUARE DE MEEUS 35
1000 BRUXELLES
Belgium

EU Contribution: €23,800

Technologies:

Aircraft operations and safety
Trajectory Based Flight Operations

Development phase: Research/Invention

Network and traffic management systems, Other

STRIA Roadmaps: specified

Transport mode: Air transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Digitalisation, Deployment planning/Financing/Market roll-out

Geo-spatial type: Other