




AIRPORTS
Extra-Aviation Services in an Integrated Airport Environment

ATHENS INTERNATIONAL AIRPORT




ENVIRONMENT
Routes Analysis for Fuel Consumption Optimisation and Pollution Awareness

PACE & TXT SOLUTIONS



HEALTH
Aviation Related Disease Spreading

Istituto per l'Interscambio Scientifico



PEOPLE
Enhancing Passenger Experience

CELLOCK

Project Details

Title: Aviation-driven Data Value Chain for Diversified Global and Local Operations
 Total Cost: 3,951,125 €
 EC contribution: 2,999,600 €
 Project start: 1st January 2018
 Duration: 36 months

Contact

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The Information Catalyst for Aviation Services.



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ICARUS aims to deliver a novel framework and architecture that leverages data, primary or secondarily related to the aviation domain, coming from diverse sources (data APIs, historical data, statistics, sensor / IoT data, weather data, and various other open data sources) to help companies and organisations whose operations are directly or indirectly linked to aviation (e.g. airports, airlines, IT aviation companies, aircraft equipment industries, extra-aviation service providers, tourist agencies, health and epidemics monitoring agencies, etc.) to simultaneously enhance their data reach, as well as share / trade their existing data sources and intelligence, in order to gain better insights into airplanes', airports' and passengers' quantified selves and contribute to improving their operations whether in real time or "offline" and increasing passengers' safety and satisfaction.

WHAT MAKES ICARUS UNIQUE

A one-stop shop
for discovery of native, extra and derivative-aviation data assets

A trusted analytics sandbox
to link and gain insights into private, confidential and external data

A data brokerage platform
enabling new forms of data sharing based on P2P licensing schemes

3RD TIER DATA Aviation-derived Data

HEALTH, TOURISM, SECURITY



2ND TIER DATA Extra-Aviation & Linked Open Data

AIRPORT SERVICES AVIATION RELATED SERVICE PROVIDERS



1ST TIER DATA Primary Aviation Data

AIRPORTS, AIRLINES



ICARUS APPROACH

ICARUS will enable 2 iterative, yet complementary processes to be undertaken by different stakeholders who wish to leverage the aviation data value chain offerings:

Data providers are able to extract aviation-relevant data classified under the 1st and 2nd tiers and enhance their data privacy (by applying data anonymization techniques or creating synthesized data). Such data are collected in the ICARUS platform, curated, linked, analysed and visualised to allow their stakeholders to understand the distilled data essence, reach more informed decisions and take appropriate action.

Different aviation-related stakeholders, acting as **data consumers**, may explore extracts of data belonging to the any of the 3 tiers, and experiment in an analytics sandbox within the ICARUS platform, by combining the extracts of data with their own data and by running various analytics algorithms. As soon as they realise that a specific dataset fits their business, they may purchase it by its rightful owners and eventually utilize it to apply ICARUS big data analytics in their secure data space.

