

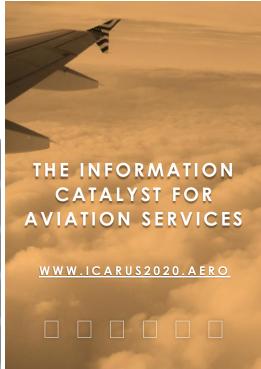
ABOUT ICARUS

Full Title:

Aviation-driven Data Value Chain for Diversifed Global and Local Operations



Co-funded by the European Commission. Horizon 2020 - Grant #780792. ICT-14-2017: Big Data PPP: cross-sectorial and cross-lingual data integration and experimentation





ICARUS successfully organized its Datathon Event on June 22nd and 23rd, 2021.

The main objective of the ICARUS Datathon was to showcase the platform functionalities and features to external users, allowing them to explore the ICARUS platform and create new innovative applications for solving concrete problems in the aviation industry.

The participants had the opportunity to access aviation open data in the Marketplace, identify potential aviation-related problems that they could solve, and created solutions with the use of the ICARUS platform.



Why was the ICARUS Datathon Organized?



Organizing the ICARUS Datathon provided a unique opportunity to open up the platform to external data scientists, before its official public launch. Just like with "user testing" having outside, independent individuals go through your work gives you a competitive advantage, because it typically unveils issues and bottlenecks that your own team was not able to detect.

The Datathon Experience was truly helpful for the ICARUS consortium, because the lessons learned and the feedback received will enable us to better fine-tune the platform towards its commercialisation phase. The participants of the Datathon utilised the different features of the platform and indicated several suggestions for the enhancement of the user experience.

Key Differentiating Points of the ICARUS Platform



A One-Stop Shop

Discover and explore native-aviation, extraaviation and derivative-aviation data assets



Trusted Data Sharing

Create, sign and validate smart data contracts in an immutable manner to acquire data assets



End-to-End Data Security

Encrypt and check-in your data through an on-premise environment



Advanced Access Control

Regulate access to your data assets through declarative authorization policies



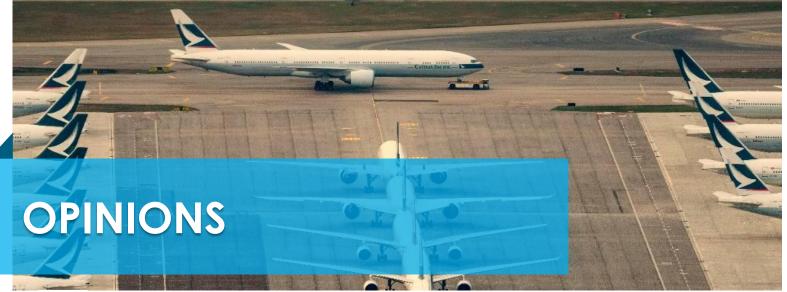
Effortless Data Linking

Curate, map and link your data assets with external data



Secure & Private Analytics Spaces

Design and execute your analytics and your "applications" in private sandbox environments, spawn on demand





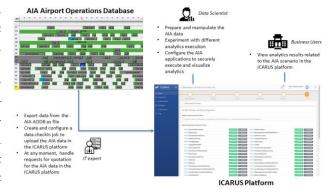
ICARUS-ENABLED SCENARIOS:

Demonstrator #1 - Airport Capacity Planning Improvement

The AIA (Athens International Airport) demonstrator focuses on the optimization of Airport Capacity Planning Improvement. In order to understand the current airfield performance and baseline capacity in AIA, and to properly perform an analysis that shall lead to improved

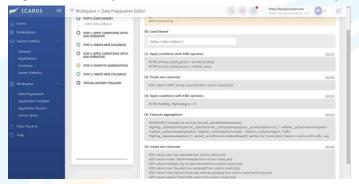
planning of flight schedules per season, historical data for the runway, aprons, gates, aircraft stands, gates, terminals and local airspace (from all airport stakeholders and certified aviation organization sources) need to be leveraged together with additional aviation-related data sources.

In order to effectively use the ICARUS platform, AIA extracts the necessary data from its Airport Operations Database (AODB) and its IT users manually upload them in the ICARUS platform, performing all necessary configurations. The AIA data are available in the platform, explored and analyzed by a data scientist in order for the business/operational users that eventually access the ICARUS platform to view the results of the analysis that affect their operations.



Experience on the ICARUS Platform

The AIA demonstrator utlised the ICARUS Platform in order to: (1) securely upload confidential data assets by: a. creating a new data checkin job to upload AIA historical data and b. cloning the existing data check-in job (from a.) to preserve mapping, cleaning and encryption rules; (2) securely update already uploaded confidential data assets; (3) create analytics tasks for each sub-problem, namely Delay prediction, Passenger Traffic forecasting and Position (Parking Stands) scheduling, by creating virtual datasets, linking own virtual datasets with purchased data assets, generating advanced virtual datasets, and creating new analytics applications; (4) search for additional data assets to complement the analysis; (5) visualize the outcomes of the analysis.





Prepared by AIA

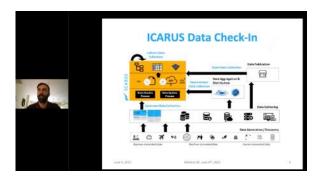


PAST EVENTS



Title: "How to Check-In your Data in the ICARUS Platform"

Webinar #3 focused on on data sharing on the ICARUS platform. This webinar was presented by UBITECH and it focused on the data check-in process of the ICARUS platform. With an Attendance Rate of 41% and Total Average Attendivness of 100% this event, was considered very successful.



Screenshots from Webinar #2





Title: "How to share your data in the ICARUS platform"

The webinar was concentrated on data sharing on the ICARUS platform.



Title: "How to Gain Insights into Your Data Through the ICARUS Platform"

This webinar focused on analytics data on the ICARUS platform



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