

i- CALL FOR TENDERS

Call for Tenders No.: ECTL_SRC_230114

Title: **ASTRA Preparation Tool and EAR Analysis DataMart for Real Time Simulation**

General: EUROCONTROL is an intergovernmental organisation with 41 Member and 2 Comprehensive Agreement States. We are committed to building, together with our partners, a Single European Sky that will deliver the air traffic management (ATM) performance required for the twenty-first century and beyond.

Technical subject matter:

New tools are needed to improve the preparation, validation and result analysis for Real-Time Simulations. Whilst the simulations prepared at the EIH have been increasing in size and scope, the way that airspace and traffic data for a Real time Simulation is prepared, corrected and validated remains rooted in tools and methods that are many years old. Similarly, following the completion of exercises, the ability to produce results, data and charts related to the validation requirements is limited by the tools available.

New tools must facilitate improved working methods and allow the Data Preparator and Operational teams to work more collaboratively with the client ANSPs. The need of the teams is to have a single interface for the RTS data preparation and validation. Ideally, this should be through a graphical view of the airspace/traffic by the EUROCONTROL Data Preparator but also by clients away from the EUROCONTROL (EIH).

It should be possible to introduce changes to the airspace and traffic directly through the graphical depiction. Preferably, the same tool should support data preparation and a minimum of data analysis to support RTS data validation.

In general, in a controlled and scalable environment, the tool should allow for:

- The ability to manage data in a centralised information system, reliable and consistent, excluding data redundancy and managing the history of data changes
- The ability to share and reuse data between several exercises
- The ability to manage the different data preparation phases (phases status)
- The ability to export and import data in different format
- Graphical illustration in 2D and 3D of airspace and traffic

SUPPORTING EUROPEAN AVIATION

Member States: Albania, Armenia, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Republic of Moldova, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye, Ukraine, United Kingdom.

Comprehensive Agreement States: Israel, Morocco.

- The ability to make changes to airspace and traffic via the graphical depiction and view the result
- The ability to project designated recorded data onto these maps
- The ability to use the tool in different ways:
 - On-site or off-site (centralized / decentralized)
 - With or without connection to the central information system (on-line / off-line)
- The ability to have a back-office application for system administration:
 - Setting
 - Management of users and their rights (roles, profiles)
 - Management of reference data

The existing tools suite challenged by the ASTRA project is composed of:

- IPAS: tool to prepare data for real-time simulations and to analyse results. In addition to manipulating the data it allows the importation or exportation extraction of data from IPAS database. The key objective of ASTRA is the replacement of this IPAS tool.
- ART ANALYSIS: (Analysis and Redisplay Tool) allows to analyse or modify all or part of the data managed by the IPAS system (ART-Visu is part of ART Analysis). This tool shall also be replaced by ASTRA when ASTRA will provide basic analysis supporting OPS experts with the RTS data preparation.
- PVT (Profile Validation Tools): allows to visualize or to modify traffic sample profiles with presentation of all data (point, sector, estimates, ATC constraint, flight data, kinematical data, etc). The PVT is used during the preparation phase but also during the simulation and post simulation with the recorded flight profile. Focus will be given to replace this tool by ASTRA to visualize prepared vertical profiles only (not Post RTS data).

[Main selection, assessment and award criteria](#)

TEHKNICAL SELECTION AND CAPACITY CRITERIA

Experience in similar high technology projects around ATC or Aeronautic

SCORING TECHNICAL ASSESSMENT CRITERIA

Experience in Agile project management, to be force of proposal to give good advises in regards of project support (management process / technology / ideas).

(Agile project management includes Agile development team, Agile process, Backlog management, Requirements/Tests management.)

Experience in technologies with Language (Java/FX, Spring / Spring Boot, PL/SQL)
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Experience in technologies with Databases (MongoDB, ORACLE)

Experience in technologies with UX Experience to support User Requirements, proposing relevant HMI solutions, clear specifications.
Experience in technologies with Configuration and Build management (Altassian Confluence and Jira Software (plugin R4J, Xray, GIT, GitLab, Maven, Nexus)
Experience in technologies with Business Intelligence (BI) (Data modelisation for reporting, Data manipulation (import/export process, data loading...))
Experience in technologies with GIS (Geographic Information System with Hexagon LuciadLightSpeed product)
Ability to write professional documents in English or French
Proposed Team with ATC system experience

The economically most advantageous offer will be established in accordance with the following:

For the Technical tender, a weighting of 70% is applied, for the Financial tender, a weighting of 30%.

Tender closing date: 01-12-2023 at 15:00 CET

Point of Contact: If you wish to receive the Call for Tenders please see the "Important Notice" below and if you have any other related questions, please contact:

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If this Call for Tenders should interest you, please read the important information below:

IMPORTANT NOTICE

The full i-Call for Tenders documentation is in electronic format (.pdf).

If you wish to obtain the i-Call for Tenders documentation please read and follow carefully the instructions below:

1. If you are already registered in the EUROCONTROL Supplier Portal, you can search for this Call for Tenders, and its relevant documentation, in the “*View Active Negotiations*” section of the Supplier Portal.
2. If you are not yet registered as a EUROCONTROL supplier, please follow the process described on the following link: <https://www.eurocontrol.int/portal/new-supplier-portal>.
3. EUROCONTROL accepts no responsibility whatsoever for the completeness, accuracy and/or timeliness of the transmission of the electronic documents (nor for the electronic documents themselves).
4. Submission of tenders shall be made electronically and shall be exclusively made in strict accordance with the instructions given in the tendering documentation.
5. You may:
 - a) print out the documents;
 - b) forward the documents further on a strictly need to know basis (always fully acknowledging the source, i.e. EUROCONTROL), and
 - c) use print-outs of the electronic i-Call for Tenders documents for the submission of tenders (especially the Price Offer Form ref: I-TSF-E).
6. You may not:
 - a) modify, edit and/or change the electronic documents other than to submit the required info and to sign/stamp where required;
 - b) transmit such documents to any third person who has no need to know them;
 - c) post such documents on any private or public website;
 - d) alter the originating source (EUROCONTROL) and or copyright signs etc., and
 - e) transmit the documents without indication of the source.

An environmental notice:

With a view to reduce the exponential growth of paper consumption, we would invite you only to print out electronic documents received and/or request paper copies of the price enquiry documentation if you are actually considering to submit a tender.