

## i- CALL FOR TENDERS

**Call for Tenders No.:** 22-440248-A

**Title:** Provision of expert support for the development of complex analysis tools and methods using advanced algorithms

**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:**

The work of the EUROCONTROL NM/SAF Unit in its various projects involved more and more data collected from the ANSPs, at various degrees of complexity. The data comes from quantitative as well as qualitative measurements and some are very important, yet difficult to process, due to their fuzziness, thus requiring advanced methodologies for Business Intelligence.

Such examples are: narratives of occurrence reports which are made available through projects such as the Weak Signals or via the TOKAI tool, justifications and evidence collected via the Standard of Excellence measurement, ad-hoc surveys which are ran at the request of the Safety Team, etc. In all such cases analyses are performed using rather basic tools, such as MS Excel or at most, MS PowerBI. These are adequate for numeric analyses up to a certain complexity, but fall short of providing in-depth understanding of complex data and furthermore, are wholly unsuitable for fuzzy data or free language analyses.

Such analyses become increasingly necessary at the Network level, where the effects and interdependencies go well beyond a single ANSP. According to the mission of NM, we are tasked with ensuring the Network safety and detecting any network-wide issues is thus essential. With the increasing complexity of the data, more advanced techniques, such as Machine Learning (ML) or even Artificial Intelligence (AI) may be needed, in order to corroborate large amounts of data, which do not appear to be immediately correlated.

### 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, Turkey, Ukraine, United Kingdom.

**Comprehensive Agreement States:** Israel, Morocco.

There is a need to integrate the collection of safety information and transfer it into safety knowledge through adequate Dashboards. All Safety management flows of information should be integrated and the requirement. Each flow should be structured and allow to be collected in an automated way as much as possible. Furthermore correlation analysis should be possible between data collected via different flows.

Such support should be availed of on a per-need basis, for targeted tasks, and as precise assistance. It would also help keep the SAF Unit relevant staff up-to-date with the current methods, tools, or philosophy. The platforms to be used should be through the maximisation of the platforms existing in EUROCONTROL e.g. Office 365 (Power BI, Customer Voice etc.).

The scope of this 4 years' contract is to provide expert support equivalent to 1 part-time (130 days per year).

**Main selection, assessment and award criteria:**

<b>TECHNICAL ASSESSMENT CRITERIA</b>
<ul style="list-style-type: none"> <li>• University Degree (PhD level) in aeronautical engineering</li> <li>• University Degree (MSc Level) in Computer engineering</li> </ul>
<ul style="list-style-type: none"> <li>• Demonstrated statistical analysis expertise, including representation of data in graphs and charts in a user-friendly way;</li> <li>• Business Intelligence qualification, backed by solid experience;</li> <li>• Project Management qualification, backed by solid experience;</li> <li>• Certification in Project Management, backed by a proven track record of managing cross-border projects</li> <li>• Certification in Change management</li> <li>• Microsoft certification related to Power Platform and Database management</li> <li>• Certification in IT service management</li> </ul>
<ul style="list-style-type: none"> <li>• Sound knowledge of ATM SMS and experience in SMS implementation;</li> <li>• Proven Business Intelligence experience for projects relevant for ANSPs</li> <li>• Sound knowledge of ATM Safety Regulations, Safety Culture Surveys, Fatigue Management, ICAO Annex 19 and the EUROCONTROL/CANSO SoE in SMS Method.</li> <li>• Proven knowledge of EUROCONTROL and ICAO ATM environment</li> <li>• Sound knowledge of Artificial Intelligence and Machine Learning solutions;</li> </ul>

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<ul style="list-style-type: none"> <li>• Previous experience in designing and developing Microsoft Power Apps and Power BI dashboards</li> <li>• Previous experience with EUROCONTROL safety tools</li> <li>• In particular for this task significant experience is required in interfacing with ANSPs for safety-sensitive information. A proven track record is required in order to deal directly with ANSPs on behalf of EUROCONTROL</li> </ul>
<ul style="list-style-type: none"> <li>• Publications in international peer-reviewed journals and conference proceedings about ATM topics related to risk, safety, quality or resilience based on practical and academic experience.</li> <li>• Publications in international peer-reviewed journals and conference proceedings about Artificial Intelligence and Machine Learning solutions based on practical and academic experience.</li> </ul>
<ul style="list-style-type: none"> <li>• Overall approach to the survey, realistic evaluation of the work, details of the project</li> <li>• Good interpersonal skills.</li> <li>• Excellent English, equivalent ICAO Level 6</li> </ul>

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

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

**Tender closing date:** 06-06-2022 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:

Armelle DUPUY

NMD/BCS/Procurement  
E-mail: armelle.dupuy@eurocontrol.int  
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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, please send an e-mail to the Point of Contact mentioned above to get access to the documentation.
2. If you are not yet registered as a EUROCONTROL supplier, please follow the 3-step process described on the following link: <https://www.eurocontrol.int/portal/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.