

i- CALL FOR TENDERS

Call for Tenders No.: 21-110375-A

Title: Development and maintenance of NEST Software

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 Network Operations Planning area is facilitating, in response to the requirements of SES II and in partnership with all ATM actors, the design, planning and implementation of operational measures for the improvement of the European ATM network. Network Operations Planning activities are key to ensure a consolidated approach between: performance and operational planning, traffic forecasts, design of the European airspace, enhanced ASM/ATFCM processes and procedures, airport operations, enhanced ATFCM planning, and integrated data and tool availability for all planning phases. These activities ensure the seamless integration of actions covering network-wide airspace design, airspace utilisation, capacity planning and operational integration of FABs.

The NEST tool is used by the Network Manager and by the majority of ANSPs for local / FAB airspace design and capacity planning, and assessment based on the network requirements.

This contract aims at developing and maintaining the NEST software including new functionalities requested by the users and the update of the technical and guidance materials. It is also requested to provide interactive support and training for users, and to participate in capacity planning and airspace structure development meetings.

* EUROCONTROL – European Organisation for the Safety of Air Navigation

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, Moldova, Monaco, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom.



NETWORK
MANAGER



This tasking effort will be located in EUROCONTROL premises, either in Brussels HQ or in Brétigny, to allow the required coordination with the operational experts and the secure testing of new functionalities.

Main selection, assessment and award criteria:

TECHNICAL CAPACITY CRITERIA
See attached annex on p. 4-12 of this document

TECHNICAL ASSESSMENT CRITERIA
See attached annex on p. 4-12 of this document

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

For the Technical tender, a weighting of 60% is applied, for the Financial tender, a weighting of 40%.

Tender closing date: 10-11-2021 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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DCF/AFS/PROC
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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.

Annex to Internet Notice for the Development and Maintenance of the NEST software

Table 1 – **TECHNICAL SELECTION AND CAPACITY CRITERIA**

Criteria	Subject	<u>Proof required</u>	<u>Pass/Fail</u>
1	The Tenderer shall have the Technical and Professional Capacity to deliver in the area of C++ programming of scientific software, code optimisation and performance with sufficiently skilled resources.	Proven experience through at least two (2) successful projects/studies within the past four (4) years in the field of C++programming, including performance optimisation. These should be described in detail in the technical offer. The Proposed resource(s) should have relevant academic and/or professionally acquired skills in the areas of C++ programming of scientific software. CVs should be provided.	
2	The tenderer must prove experience in developing software tools for modelling aircraft traffic and scenarios, network capacity, airspace design proposals and ATFCM scenarios.	List of successful project/studies within the past four(4) years in the field of development of aircraft traffic and scenarios, network capacity, airspace design proposals and ATFCM scenarios in the technical offer	
3	The proposed resources shall have university degree in computer science	CV	
4	The proposed resources shall have at least 5 years experience in software programming	CV	
5	The tenderer must prove capacity to work in English	List of Works carried out in English over the past five (5) years provided in the technical offer	

Table 2: **ASSESSMENT CRITERIA**

Criteria	Mandatory/ Desirable	<u>Minimum Threshold Score</u>	Points Available	<u>Proof required</u>	
1	Summary of the Tender, relevance to the technical specifications and the requirements				
1a	Proposal for delivering to WP1 – Initiation	M	3	5	<p>The contractor shall provide a proposal for WP1 detailing how WP1 will be delivered to assess the quality and the content of the reply.</p> <p>The contractor must indicate 2 projects within the past 4 years with similar project initiation experience backed up by the CVs of the resources.</p>
1b	Proposal for delivering WP2 – Corrective maintenance	M	7	10	<p>Content and quality of the reply, understanding of the requirements. The contractor must indicate 2 projects within the past 4 years with similar software maintenance experience backed up by the CVs of the resources.</p>
1c	Proposal for delivering WP3 Support	M	3	5	<p>Content and quality of the reply, understanding of the requirements. The contractor must indicate 2 projects within the past 4 years with support activities/experience backed up by the CVs of the resources.</p>
1d	Proposal for delivering WP4 Release developments	M	17	20	<p>Content and quality of the reply, understanding of the requirements. The contractor must indicate 2 projects within the past 4 years with support activities/experience backed up by the CVs of the resources.</p>

Criteria		Mandatory/ Desirable	<u>Minimum Threshold Score</u>	Points Available	<u>Proof required</u>
					The technical offer should in particular list different modelling techniques that could address the needs of this request, as well as it could mention foreseen technical limitations and caveats
1e	Proposal for delivering WP5 – Supporting the Capacity Planning Meeting	M	7	10	Content and quality of the reply, understanding of the requirements. The contractor must indicate 2 projects within the past 4 years with similar activities backed up by the CVs of the resources.
1f	Proposal for delivering WP6 - reversibility	M	3	5	Content and quality of the reply, understanding of the requirements. The contractor must indicate similar experiences backed up by the CVs of the resources.
2	Important software engineering skills requiring a strong background				
2a	Confirmed skills in project management using Agile methodology	M	3	5	Proven experience through at least two (2) successful projects/studies within the past four (4) years in the field of Agile project management skills The references and previous work experience for the skills should be described in detail in the technical offer. The proposed resource(s) shall have the relevant professional experience.
2b	Confirmed ability to develop in C++	M	7	10	Proven experience through at least two (2) successful projects/studies within the past four (4) years in the field of C++ programming including performance optimisation. The references

Criteria		Mandatory/ Desirable	<u>Minimum Threshold Score</u>	Points Available	<u>Proof required</u>
					and previous work experience for the skills should be described in detail in the technical offer. The proposed resource(s) shall have the relevant professional experience.
2c	Confirmed skills in Cygwin environment and shell scripts (especially bash) and awk writing	M	7	10	Proven experience through at least two (2) successful projects/studies within the past four (4) years in the field of development and use in Cygwin environment and shell scripts and awk writing. The references and previous work experience for the skills should be described in detail in the technical offer. The proposed resource(s) shall have the relevant professional experience.
2d	High level of knowledge of ergonomics and HMI	M	3	5	Proven experience and expertise in HMI development and ergonomics through at least two (2) successful projects/studies within the past four (4) years. The references and previous work experience for the skills should be described in detail in the technical offer. The proposed resource(s) shall have the relevant professional experience.
2e	Confirmed skills for technical documentation writing (in English);	M	3	5	Proven experience through at least two (2) successful projects/studies within the past four (4) years in the field of technical document writing skills in English. The references and previous work experience for the skills should be described in detail in the technical offer. The proposed resource(s)

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					shall have the relevant professional experience.
3	Specific software programming knowledge				
3a	Good knowledge of the standard library (STL)	M	3	5	Proven experience through at least two (2) successful projects/studies within the past four (4) years in working with the STL library. These should be described in detail in the technical offer. The Proposed resource(s) should have the relevant experience that are demonstrated in CVs.
3b	Confirmed ability to develop with QT5	M	3	5	Proven experience through at least two (2) successful projects/studies within the past four (4) years in working with QT5. These should be described in detail in the technical offer. The Proposed resource(s) should have the relevant experience that are demonstrated in CVs.
3c	High level of experience of chart director library or similar chart library	M	3	5	Proven experience through at least two (2) similar successful projects/studies within the past four (4) years in working with the chart director library. These should be described in detail in the technical offer. The Proposed resource(s) should have the relevant experience that are demonstrated in CVs.
3d	High level of experience of libXL library or functionally similar component	M	3	5	Proven experience through at least two (2) similar successful projects/studies within the past four (4) years in working with the chart director library. These should be described in detail in the technical offer. The

Criteria		Mandatory/ Desirable	<u>Minimum Threshold Score</u>	Points Available	<u>Proof required</u>
					Proposed resource(s) should have the relevant experience that are demonstrated in CVs.
3e	Confirmed skills in exporting data to various formats (such as XML, MsACCESS, MsExcel formats).	M	3	5	Proven experience through at least two (2) successful projects/studies within the past four (4) years in working with data export to different formats. These should be described in detail in the technical offer. The proposed resource(s) should have the relevant experience that are demonstrated in CVs.
4	Knowledge of the software development and technical environments used in the project:				
4a	Confirmed ability to develop tools for the Windows environment	M	3	5	Proven experience through at least two (2) successful projects/studies within the past four (4) years developing in Windows environment. These should be described in detail in the technical offer. The proposed resource(s) should have the relevant experience that are demonstrated in CVs.
4b	Confirmed skills in Adobe Photoshop and Illustrator	M	3	5	Proven experience through at least two (2) successful projects/studies within the past four (4) years using Adobe Phtoshop and Illustrator. These should be described in detail in the technical offer. The proposed resource(s) should have the relevant experience that are demonstrated in CVs.
4c	Confirmed skills in ROBOT-SOFT Automatic	M	3	5	Proven experience through at least one (1) similar successful projects/studies

Criteria		Mandatory/ Desirable	<u>Minimum Threshold Score</u>	Points Available	<u>Proof required</u>
	Mouse and Keyboard or similar				within the past four (4) years using ROBOT-SOFT Automatic Mouse and keyboard. These should be described in detail in the technical offer. The proposed resource(s) should have the relevant experience that are demonstrated in CVs.
4d	Confirmed skills in EC Software Help & Manual or similar software	M	3	5	Proven experience through at least one (1) successful projects/studies within the past four (4) years creating helps and manuals or similar software. These should be described in detail in the technical offer. The proposed resource(s) should have the relevant experience that are demonstrated in CVs.
4e	Confirmed skills on INNO Setup tool for automated distributed installation	M	3	5	Proven experience through at least one (1) successful projects/studies within the past four (4) years creating setups/installer media with Innosetup. These should be described in detail in the technical offer. The proposed resource(s) should have the relevant experience that are demonstrated in CVs.
4f	Global knowledge of Webex functionalities	M	3	5	Proven experience through at least one (1) successful projects/studies within the past four (4) years creating and running conferences with Webex. These should be described in detail in the technical offer. The proposed resource(s) should have the relevant experience that are demonstrated in CVs.

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4g	Confirmed skills in SVN and Tortoise	M	3	5	Proven experience through at least two (2) successful projects/studies within the past four (4) years using SVN and Tortoise. These should be described in detail in the technical offer. The proposed resource(s) should have the relevant experience that are demonstrated in CVs.
4h	Confirmed skills in Microsoft Development environment (Visual Studio 2013)	M	7	10	Proven experience through at least two (2) successful projects/studies within the past four (4) years using and developing with Visual Studio. These should be described in detail in the technical offer. The proposed resource(s) should have the relevant experience that are demonstrated in CVs.
4i	Good knowledge of TRAC ticketing system	M	3	5	Proven experience through at least one (1) successful projects/studies within the past four (4) years using TRAC. These should be described in detail in the technical offer. The proposed resource(s) should have the relevant experience that are demonstrated in CVs.
4j	Good knowledge of TWiki or similar Wiki systems	D		5	Proven experience through at least one (1) successful projects/studies within the past four (4) years working with TWIKI or similar. These should be described in detail in the technical offer. The proposed resource(s) should have the relevant experience that are demonstrated in CVs.

Criteria		Mandatory/ Desirable	<u>Minimum Threshold Score</u>	Points Available	<u>Proof required</u>
4k	Functional and technical knowledge of NEST and SAAM software or similar software: - Extensive knowledge on the operational use of the tool functionalities	D		10	At least 1 projects/studies within the past four (4) which demonstrates NEST/SAAM use or similar software. CVs demonstrating NEST/SAAM and scripting knowledge
4l	Extended business knowledge: - Confirmed knowledge of the European capacity planning process - Confirmed knowledge on STATFOR forecast - Good knowledge on EUROCONTROL tools (DDR2/CASA/OPTICON)	D		5	At least 1 projects/studies within the past four (4) which demonstrates capacity planning, STATFOR and Eurocontrol tools knowledge use or functionally similar other ATM software. CVs demonstrating NEST/SAAM and scripting knowledge or functionally similar other software
4m	Stakeholders acquaintance: - Good network of contacts amongst all European ANSPs - Good knowledge of individual ANSPs/ACCs operational issues	D		5	Any relevant supporting proof
			TOTAL: [109] points	[190]	
	Minimum total compliant threshold :		136		