



# **Call for expressions of interest Membership to the SESAR Joint Undertaking Scientific Committee**

## ***Executive Summary***

11 September 2012

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Call for expression of interest addressed to scientists to be appointed as members of the SESAR Joint Undertaking Scientific Committee in relation to its Air Traffic Management Research and Development Activities.

## Table of Contents

<b>1</b>	<b>INTRODUCTION .....</b>	<b>2</b>
1.1	THE SESAR PROGRAMME .....	2
1.2	THE SESAR JOINT UNDERTAKING (SJU).....	2
<b>2</b>	<b>THE SCIENTIFIC COMMITTEE.....</b>	<b>3</b>
2.1	PURPOSE.....	3
2.2	ROLE OF THE SCIENTIFIC COMMITTEE.....	3
2.3	COMPOSITION OF THE SCIENTIFIC COMMITTEE AND APPOINTMENT OF ITS MEMBERS .....	3
2.4	OPERATION OF THE SCIENTIFIC COMMITTEE .....	4
2.4.1	<i>Meetings.....</i>	4
2.4.2	<i>Independence and declaration of commitment and absence of conflict of interest.....</i>	4
<b>3</b>	<b>PURPOSE OF THIS CALL.....</b>	<b>5</b>
<b>4</b>	<b>REQUIREMENTS.....</b>	<b>5</b>
4.1	ELIGIBILITY.....	5
4.2	SELECTION CRITERIA.....	5
<b>5</b>	<b>APPLICATION PROCEDURE .....</b>	<b>5</b>
5.1	DEADLINE FOR APPLICATIONS AND REQUIRED DOCUMENTATION.....	5
5.1.1	<i>Documents required to evaluate exclusion criteria.....</i>	6
5.1.2	<i>Documents required to evaluate technical and professional capacity.....</i>	6
5.1.3	<i>Expiry date of the list.....</i>	6
5.1.4	<i>Other Information.....</i>	6
<b>6</b>	<b>SELECTION PROCESS, APPOINTMENT AND TERM .....</b>	<b>6</b>
<b>7</b>	<b>SIGNATURE OF THE CONTRACTS.....</b>	<b>7</b>
<b>8</b>	<b>PROMOTION OF EQUAL OPPORTUNITY .....</b>	<b>7</b>
	<b>APPENDIX A DECLARATION ON HONOUR.....</b>	<b>8</b>
	<b>APPENDIX B SJU SCIENTIFIC COMMITTEE FORM.....</b>	<b>9</b>
	<b>APPENDIX C TERMS OF REFERENCE FOR THE SCIENTIFIC COMMITTEE.....</b>	<b>10</b>
	<b>APPENDIX D DRAFT CONTRACT.....</b>	<b>11</b>

# 1 Introduction

## 1.1 The SESAR Programme

SESAR® (Single European Sky ATM Research) is a programme that aims at developing a new generation of Air Traffic Management (ATM) system in Europe. SESAR is set up in three phases: a definition phase; a development phase and a deployment phase:

- The definition phase (2004-2008) aimed at defining the different technological steps to be taken, the priorities in the modernisation programmes and the operational implementation plans. This phase was co-financed by the European Community and by the European Organisation for the Safety of Air Navigation (EUROCONTROL).

The definition phase was carried out, under the responsibility of EUROCONTROL, by a consortium of undertakings chosen after a public call for tender. It finished in May 2008 and resulted in the "European Air Traffic Management Master Plan" (*ATM Master plan*), for the European Council endorsement. This plan includes the work programme for the implementation of the target concepts, as well as the different deployment strategies.

- The ongoing development phase (2008-2016) will:
  - (i) develop and validate new airport, terminal and en-route operational procedures, equipment, systems and standards as well as the supporting technical infrastructure for ground, airborne and space assets, and
  - (ii) ensure a convergence towards a fully interoperable ATM system in Europe and globally.
- The deployment phase (2013-2020) will consist in the large scale production and implementation of the new ATM infrastructure. The infrastructure should be composed of fully harmonised and interoperable components which contribute to the development of high performance, safe and sustainable air transport infrastructure in Europe.

## 1.2 The SESAR Joint Undertaking (SJU)

The mission of the SJU, created under Article 187 of the Treaty on the Functioning of the European Union, is to ensure the modernisation of the European air traffic management system by coordinating and concentrating all relevant research and development efforts undertaken by its members. The SJU is responsible for the implementation of the European *ATM Master Plan* and for carrying out specific activities aiming at developing the new generation air traffic management system capable of ensuring the safety and fluidity of air transport worldwide over the next thirty years. Further information on the activities of the SJU is available at: <http://www.sesarju.eu/>.

To execute its mission, the SJU carries out a harmonised and consistent ATM Network R&D work programme established on the basis of the SESAR Definition Phase findings, preparing for the industrialisation and deployment of the relevant improvements and systems from 2013. It is a consolidated and integrated work programme, involving most of the ATM stakeholders, where new SESAR Operational Improvements and associated enablers will be progressively developed for integration into the European ATM network in order to enhance its capacity, safety and efficiency.

The SESAR work programme describes the activities to be performed by the Stakeholders during the SESAR Development Phase. It includes:

- The establishment of the required operational procedures and preparation of an implementation process;
- The operational/technological research and validation;
- Incremental validation activities for mature concepts and solutions (e.g. preoperational on-site real-time validations/simulations, flight trials, etc);
- The development and integration of prototypes required for preoperational validations;
- The provision of material to support standardisation and implementing rules;
- The development, upgrade and integration required for the validation infrastructure, methods and tools; and
- The performance assessment (Operational and System) including the Cost Benefit Analysis.

Under EC Regulation, the SJU has been given the mandate to lead and coordinate the Innovative and Long Term ATM Research for the European Union. To that effect a specific Work Package (WP-E) has been set-up which currently comprises two thematic research networks, 20 PhDs and 18 research projects. This is planned to double in the next coming year.

## 2 The Scientific Committee

### 2.1 Purpose

The Scientific Committee was set up by the SJU in 2009 in accordance with Article 1.5 of the Council Regulation establishing the SJU <sup>1</sup> and Article 11 of the SJU statutes attached thereto. Its main objective is to deal with all scientific aspects of the work programme.

More details on the working arrangements can be found in the Terms of Reference (“ToR”) of the Scientific Committee attached hereto as Appendix C.

### 2.2 Role of the Scientific Committee

The SJU may consult the Scientific Committee on any matter relating to scientific elements of the SESAR Development Phase.

More specifically, the Scientific Committee will work as an advisory committee to the SJU Executive Director on:

- how to best address the technical and organizational challenges as well as the findings of the SESAR Programme work packages from a scientific perspective;
- how to ensure and help promote appropriate innovation in the programme;
- how to ensure appropriate participation in the programme from the scientific world.

In this context the Scientific Committee will be consulted by the SJU Executive Director;

- on specific issues arising from the work programme requiring a scientific recommendation;
- on directions of the long term innovative research programme;
- on opinions on any scientific related matters concerning the SJUs<sup>1</sup> activities.

In addition, some members of the Scientific Committee act as correspondents between the Scientific Committee and the SESAR Thematic Research Networks in WPE as well as helping review scientific papers etc coming from across WPE.

### 2.3 Composition of the Scientific Committee and appointment of its members

The Scientific Committee shall be composed of up to twelve (12) scientists appointed as members of the Scientific Committee with a reserve list of up to six (6) scientists being retained (see 5.1.3). Scientists of the reserve list will be part of the Scientific Committee if at any time any of the twelve members leaves the Scientific Committee or when vacancies arise.

Members of the Scientific Committee are appointed in a personal capacity in view of their scientific and academic excellence and independence. Consequently, members may not designate an alternate to replace them. A chair and a vice-chair will be elected by the Committee from the members of the Committee and will be rotated and refreshed with its agreement. Subject to the applicable criteria and procedures defined in Section 4 below, members of the Scientific Committee

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<sup>1</sup> Council Regulation (EC) No 219/2007 of 27 February 2007 on the establishment of a Joint Undertaking to develop the new generation European air traffic management system (SESAR) as amended by Council Regulation (EC) No 1361/2008 of 16 December 2008

will be appointed to ensure, as far as possible, demonstrable commitment to the furthering of research and innovation in the field of air transport and an adequate coverage and balance in terms of:

- Range of competencies (i.e., coverage of the most relevant scientific fields linked to the needs of SESAR Joint Undertaking work programme);
- Experience in a range of relevant research and innovation activities;
- Geographical origin;
- Gender.

In particular, the expertise of the members of the Scientific Committee shall comprise the following fields:

- Economics;
- Human Factors and Social Science;
- Automation;
- Complexity theory;
- System Architecture and System Design;
- Information Management, Uncertainty and Optimisation;
- Mathematics modelling and operational research;
- Aerodynamics and Avionic research;
- Business Agility and Decision Support;
- Environment;
- Security;
- Meteorology.

The list above is indicative and does not preclude any other types of scientific fields which can be of interest to SESAR. A better description of these fields can be found in the [Thematic Programme](#) of the SESAR Long Term and Innovative Research work package available at <http://www.sesarju.eu/>.

Members of the Scientific Committee will be appointed for a three (3) years contract. The Contract shall be automatically renewed for an additional one (1) year period, should the mandate be renewed for such a corresponding period. The maximum duration of the Contract is four (4) years.

## 2.4 Operation of the Scientific Committee

### 2.4.1 Meetings

Meetings of the Scientific Committee will generally be held at the SJU premises in Brussels two to four times a year. During these meetings, each member may be asked to organise, prepare and present a topic of interest for the Scientific Committee and SESAR.

In addition, members of the Scientific Committee will be appointed as the SESAR Scientific Award Board and as the selection committee for the scientific papers of the SESAR events (SESAR Innovation Days, etc.).

The members of the Scientific Committee are expected to attend all meetings. If the member does not attend two consecutive regular Scientific Committee meetings, the Scientific Committee membership may be withdrawn.

### 2.4.2 Independence and declaration of commitment and absence of conflict of interest

The members of the Scientific Committee are appointed in a personal capacity and are required to advise the SJU independently of any outside influence.

Members of the Scientific Committee are required to sign a declaration on confidentiality, commitment and conflict of interest (see amended SJU Administrative Board Decision ref. SJU/AB/08/08/DOC/03 regarding “*Confidentiality, independence and management of conflict of interest of the SJU bodies*” dated 29<sup>th</sup> March 2012).

Throughout the entire duration of their tasks, the appointed Scientific Committee members shall demonstrate the appropriate devotion to duty and observe complete confidentiality of the information and documents brought to their attention.

### 3 Purpose of this call

This call is addressed to scientists who would like to express an interest to become a member of the SJU Scientific Committee.

Current Scientific Committee members must confirm their interest by reapplying to this call for expression of interest.

### 4 Requirements

The SESAR Joint Undertaking is looking for highly skilled and positive open-minded scientists, independent of their organisation that will support the SJU during the SESAR Development Phase and be familiar with the European Air Traffic Management objectives. To this end, the SJU hereby invites suitably qualified and motivated individuals to apply as prospective members of the SJU Scientific Committee.

#### 4.1 Eligibility

This call for expressions of interest is open to any individual person wishing to apply and who is residing in or being a national of the EU or the ECAC countries.

The candidates shall have:

- a university degree in a relevant scientific area, preferably at Doctorate level;
- a minimum of 10 years of relevant research experience after obtaining the above mentioned degree;
- experience in organising/participating in research projects, involving partners from Research Centres, Universities, European Research Organisations and industry.

The SJU reserves the right to request any documentary evidence it deems necessary in order to verify candidates' skills and knowledge.

Please note that it is the responsibility of the candidate to inform the SJU immediately of any changes to their administrative and technical details which would result in a change to their original application.

#### 4.2 Selection criteria

The criteria for the selection of the members of the Scientific Committee are:

- Proven scientific excellence related SESAR with particular regard to the fields defined in section 2.3 above;
- Experience in peer reviewing scientific work;
- Organisational and management experience in research;
- Professional experience in a multidisciplinary environment, preferably in an international context;
- Experience in providing scientific advice in the required areas of expertise;
- Proven ability to communicate fluently in English.

### 5 Application procedure

#### 5.1 Deadline for applications and required documentation

Interested candidates who consider they comply with the requirements in Section 4 are required to submit by email only to [scientificcommittee@sesarju.eu](mailto:scientificcommittee@sesarju.eu) the documents indicated in Section 5.1.1 and

5.1.2 below by **31<sup>st</sup> October 2012** at the latest. Documentation submitted after this date will be considered not acceptable and automatically destroyed.

### **5.1.1 Documents required to evaluate exclusion criteria**

Applicants must provide a declaration on their honour (see Appendix A), duly signed and dated, stating that they are not in one of the situations of exclusion indicated therein.

### **5.1.2 Documents required to evaluate technical and professional capacity**

Candidates shall submit by email, if possible in PDF or similar format if possible, the following documents:

- a curriculum vitae in EU format (available at: <http://europass.cedefop.europa.eu/en/documents/curriculum-vitae>)
- the SJU Scientific Committee Form attached hereto as Appendix B, duly completed with particular regard to the elements related to the requirements mentioned in Section 4 above including a list of scientific publications in books and peer-reviewed journals and abstracts of the 10 most relevant articles.

The title and exact reference of this call for expression of interest should be indicated in the subject of the e-mail.

Applications where the format and/or content of the Europass CV and/or the Application Form have been modified may be deemed void.

The candidate shall authorize the SJU to use the personal and professional data provided within the context of the selection process object of this procedure.

Please note that the information provided in your application is subject to EU legislation on protection of personal data and confidentiality of information. For this purpose, please refer to the [Privacy Statement](#) published on the SJU's website: <http://www.sesarju.eu/about/procurement>.

### **5.1.3 Expiry date of the list**

The reserve list including up to six (6) scientists as detailed in Section 3.2 shall be valid until 31 December 2015.

### **5.1.4 Other Information**

No correspondence will be exchanged on the status of the procedure except following final decision, positive or negative. Candidates are therefore formally requested not to enquire about the progress of their application neither by email, telephone, fax nor letter.

## **6 Selection process, appointment and term**

Only candidates that provided the requested documentation duly completed by the deadline and in the form set forth in Section 5 will be assessed in accordance with the criteria and requirements established in the call for expressions of interest and in accordance with the principles of transparency, non-discrimination and equal treatment.

The evaluation will be carried out by the SESAR Joint Undertaking on the basis of the selection criteria given above. The Executive Director will nominate and chair a selection panel, composed of members of the SJU senior staff and other independent experts as the case may be.

Based on the principle of rotation of the membership, a limited number of applicants meeting the requirements for membership but who are not designated will be invited to be placed on a reserve list.

In case of equal scientific excellence the need to ensure geographical and gender balance shall be taken into consideration.

All candidates will be informed of the result of their candidature as well as the reserve list published on the SJU website.

Queries relating to the information published in the present call for expressions of interest regarding the procurement procedure should be sent in writing to the following e-mail address: [procurement@sesarju.eu](mailto:procurement@sesarju.eu). Candidature received at this address will be disregarded and destroyed.

Information about the outcome of the selection procedure shall be made available to applicants at the latest 6 months after the SJU, in writing, acknowledged the receipt of the application.

## 7 Signature of the Contracts

A Contract will be signed between the SJU and the selected scientist.

A draft contract including the relevant annexes is enclosed to the present call for expressions of interest as Appendix D. In accordance with the draft contract provisions, the members of the Scientific Committee shall be entitled to a payment of EUR 450,00 (four hundred fifty EURO) in the form of a **lump sum** for each full working day spent performing the SJU services under the Contract as well as a daily subsistence allowance and reimbursement of travel expenses in accordance with Annex 3 to the draft contract attached hereto as Appendix D.

Selected scientists will be requested to commit themselves to respect applicable national legislation (including taxation) with regards to any payment received from the SJU and with regards to social security matters and working rights.

Upon request by any competent national authorities, the SJU may inform the authorities about any payment made for the performance of the duties assigned to the independent expert.

Upon request by any competent national authority, the SJU may inform the authorities about any payment made in the context of the contract resulting from this call.

## 8 Promotion of Equal opportunity

The SJU applies the EU policy of equal opportunities and accepts applications without distinction on the grounds of age, race, political, philosophical or religious conviction, gender or sexual orientation and regardless of disabilities, material status or family situation.

## APPENDIX A DECLARATION ON HONOUR

[To be completed and signed by the applicant]

The undersigned:

*Name of the individual/company/organisation:*

*Legal address:*

*Registration number/ID Card No.:*

*VAT number:*

Declares on oath that the individual/company/organisation mentioned above is not in any of the situations mentioned below:

- a) they are bankrupt or being wound up, are having their affairs administered by the courts, have entered into an arrangement with creditors, have suspended business activities, are the subject of proceedings concerning those matters, or are in any analogous situation arising from a similar procedure provided for in national legislation or regulations;
- b) they have been convicted of an offence concerning their professional conduct by a judgement which has the force of *res judicata*;
- c) they have been guilty of grave professional misconduct proven by any means which the SJU can justify;
- d) they have not fulfilled obligations relating to the payment of social security contributions or the payment of taxes in accordance with the legal provisions of the country in which they are established or with those of the country of the contracting authority or those of the country where the contract is to be performed;

I the undersigned understand that contracts may not be awarded if during the procurement procedure the individual/company/organisation mentioned above:

- is subject to a conflict of interest;
- is guilty of misrepresentation in supplying the information required by the contracting authority as a condition of participation in the contract procedure or fail to supply this information;

Full name:

Date & Signature:

## APPENDIX B SJU SCIENTIFIC COMMITTEE FORM

## APPENDIX C TERMS OF REFERENCE FOR THE SCIENTIFIC COMMITTEE

## APPENDIX D DRAFT CONTRACT