

## Annex I

### TENDER SPECIFICATIONS

#### for Galileo Signals Performance Simulation Tool

#### TABLE OF CONTENTS

<b><u>I. SPECIFICATIONS.....</u></b>	<b><u>3</u></b>
I.1. INTRODUCTION .....	3
I.2. PURPOSE OF THE CONTRACT.....	3
I.3. LIST OF ACRONYMS .....	4
I.4. TASKS.....	4
I.4.1. TASK 1 – CONTRACTUAL AND TECHNICAL MANAGEMENT .....	4
I.4.2. TASK 2 – GNSS SIGNALS PERFORMANCE MEASURES AND METHODOLOGY.....	5
I.4.3. TASK 3 – DEVELOPMENT OF THE SIMULATION TOOL .....	6
I.5. PROJECT MILESTONES AND MEETINGS.....	7
I.6. PROJECT DURATION.....	7
I.7. DELIVERABLES.....	7
I.7.1. REPORTS AND DOCUMENTS TO PRODUCE .....	7
I.7.2. REPORT FORMAT AND PUBLICATION.....	7
I.8. PLACE OF PERFORMANCE.....	8
I.9. CONTRACT VALUE .....	8
<b><u>II. TERMS OF CONTRACT.....</u></b>	<b><u>9</u></b>
II.1. TERMS OF PAYMENT.....	9
II.2. FINANCIAL GUARANTEES.....	9
II.3. SUBCONTRACTING .....	9
II.4. LEGAL FORM TO BE TAKEN BY THE GROUPING OF SERVICE PROVIDERS TO WHOM THE CONTRACT IS AWARDED.....	9
<b><u>III. FORM AND CONTENT OF THE TENDER.....</u></b>	<b><u>10</u></b>
III.1. GENERAL.....	10
III.2. STRUCTURE OF THE TENDER.....	10
III.2.1. SECTION ONE: ADMINISTRATIVE PROPOSAL .....	10
III.2.2. SECTION TWO: TECHNICAL PROPOSAL .....	11
III.2.3. SECTION THREE: FINANCIAL PROPOSAL.....	11
<b><u>IV. ASSESSMENT AND AWARD OF THE CONTRACT.....</u></b>	<b><u>13</u></b>
IV.1. EXCLUSION CRITERIA (EXCLUSION OF TENDERERS) .....	13
IV.1.1. EVIDENCE TO BE PROVIDED BY THE TENDERERS.....	14
IV.1.2. OTHER CASES OF EXCLUSION.....	14
IV.1.3. DECLARATION.....	14

IV.2.	ADMINISTRATIVE AND FINANCIAL PENALTIES.....	<b>15</b>
IV.3.	SELECTION CRITERIA (SELECTION OF TENDERERS).....	<b>15</b>
IV.3.1.	ECONOMIC AND FINANCIAL CAPACITY – REFERENCES REQUIRED.....	16
IV.3.2.	TECHNICAL AND PROFESSIONAL CAPACITY – REFERENCES REQUIRED.....	16
IV.4.	EVALUATION OF TENDERS – AWARD CRITERIA.....	<b>16</b>
IV.5.	INFORMATION FOR TENDERERS.....	<b>18</b>
IV.6.	ANNEXES.....	<b>18</b>

## I. SPECIFICATIONS

### I.1. Introduction

The Galileo programme is established for the implementation of a Global Navigation Satellite System under European control, to become operational in the time frame of 2013.

In order to ensure Galileo competitiveness, it is important to understand the fast changing GNSS environment. The GNSS world is entering a new area and will change significantly in the near future. The number of satellite navigation systems will increase, existing global navigation satellite systems will be updated (GLONASS) and/or modernised (GPS). New satellite navigation systems and associated augmentations are being planned or already under development. The future global satellite navigation 'environment' will consist of co-existing multi – system, multi - frequency capabilities with a number of regional augmentations.

In such a challenging GNSS environment accompanied by changes of user requirements it is important to have a continuous evolution process of the Galileo system and related performance characteristic, so that the successes of Galileo in the future can be assured.

In this context, the analysis of the performance of the current and planned Galileo signals and of the current and planned signals of the other GNSS is necessary.

### I.2. Purpose of the Contract

The objective of the present call is to procure a simulation tool in order to assess the relevant performance of the current Galileo signals, and of their potential evolutions, and of the other GNSS signals. The simulation results of this tool shall provide a quick and accurate overview of the signal performance.

Having the capability to estimate those performances will allow GSA to assess the relevance of the proposals for Galileo signals modernization. For instance, different signals modulations and frequency bands (use of current L-band, use of C-band 5010-5030 MHz or the S band 2483.5 – 2500 MHz) may be envisioned for Galileo next generation.

Moreover, it would allow GSA to compare Galileo signals performances with the performances of other GNSS signals (e.g. GPS, GLONASS, COMPASS, QZSS and IRNSS).

Note that specific simulation tools for compatibility analyses between GNSSes will be developed under a specific FP7 contract. The simulation tool discussed in these tender specifications covers different aspects which are intrinsic to navigation signals of a single system. However, the development of all those tools shall be coordinated to the maximum extent possible to ease the integration of the tools if needed.

This contract includes the execution of the following tasks:

Task 1: CONTRACTUAL AND TECHNICAL MANAGEMENT

Task 2: GNSS SIGNALS PERFORMANCE MEASURES AND METHODOLOGY

Task 3: DEVELOPMENT OF THE SIMULATION TOOL

The activities associated with these tasks are described in detail in the following sections. In the work description below, 'To' refers to the contract Kick-Off date.

### I.3. List of Acronyms

BER	Bit Error Rate
CW	Continuous Wave
EIRP	Equivalent Isotropic Radiated Power
EUROCAE	European Organization for Civil Aviation Equipment
FER	Frame Error Rate
GPS	Global Positioning System
GLONASS	GLOBAL NAVIGATION Satellite System
GNSS	Global Navigation Satellite System
IEEE	Institute of Electrical and Electronics Engineers
ION	Institute of Navigation
IRNSS	Indian Regional Navigation Satellite System
ITU	International Telecommunication Union
MMI	Man-Machine Interface
QZSS	Quasi Zenith Satellite System
RTCA	Radio Technical Commission for Aeronautics
RF	Radio Frequency
SBAS	Satellite Based Augmentation System
SSC	Spectral Separation Coefficient
SV	Satellite Vehicle

### I.4. Tasks

#### I.4.1. TASK 1 – CONTRACTUAL AND TECHNICAL MANAGEMENT

##### I.4.1.1. Description

The task consists in providing the overall management for the contract.

The main activities to be performed are:

- Contractual management
- Organisation and coordination of project internal activities including communication flow
- Management of documents
- Tracking of project status
- Establish and maintain travel plan
- Review and verification of deliverables
- Organisation of progress meetings (calling notice, agenda, chairing and reporting)
- Identify needs for interfaces with external entities
- Ensure coordination between the different activities as necessary

Duration: This activity will have a duration of 12 months starting at To.

##### I.4.1.2. Deliverables

Ref	Title	Delivery
D1.1.x	Minutes of Progress Meetings	Every 3 months
D1.2	Intermediate Report 1	To+3 months
D1.3	Intermediate Report 2	To+6 months
D1.4	Intermediate Report 3	To+9 months
D1.5	Final Report	To+12 months

Progress meetings will be organized on a 3-monthly basis to present the status of the work and steer the next period (see point 1.5 below).

#### 1.4.2.TASK 2 – GNSS SIGNALS PERFORMANCE MEASURES AND METHODOLOGY

##### 1.4.2.1. Description

The simulation tool shall compute, at least, the following signals performance measures:

- The effective C/No at receiver level. To compute this value, it is necessary to derive a link budget from the satellite to the receiver.
- Tracking accuracy (code and phase tracking error standard deviation and envelopes) in different environment (e.g. thermal noise, multipath, interference) as a function of the effective C/No.
- Demodulation performance (BER, FER) as a function of the effective C/No.
- Acquisition performance (e.g. typical mean acquisition time).

Theoretical formulations shall be preferred for this tool to time-domain simulations. No time-domain receiver code/phase tracking or data demodulation processes shall be simulated. Of course, whenever this is not possible, specific time-domain (and frequency-domain) simulation routines may be developed. When theoretical formulas are used, they shall come from widely accepted and renowned scientific papers, references and books in the domain (from ION, IEEE, ITU, EUROCAE and RTCA for instance). The objective is to have a simulation tool with a short running time which provides accurate and realistic results.

The simulation tool shall be configurable to provide results accounting, at least, for the following parameters:

- Signals: modulations (BPSK, QPSK, BOC, MBOC, AltBOC etc.), spreading codes rates, secondary codes rates, sub-carrier frequency, data rates, power levels etc.
- Code and phase tracking processes: loop bandwidth, discriminators types, correlator spacing, coherent integration time.
- Data demodulation: data rate and correction code characteristics.
- Receiver RF front-end characteristics: equivalent filter bandwidth, amplitude and phase responses, number of bits of quantizer.
- Link budget: SV payload distortions, SV EIRP, SV antenna gain pattern, free-space propagation losses, atmospheric losses, ionospheric effects (e.g. scintillation), receiver antenna gain pattern, receiver thermal noise PSD, implementation losses (correlation losses, quantization losses etc.) and interference effect.
- Interference: type (GNSS, non-GNSS, continuous, pulsed, CW, narrowband or wideband), power levels, spectral separation coefficient (SSC) between navigation signals and interference.
- Multipath. Only the case of a single specular multipath shall be considered. Its relative delay and relative amplitude shall be accounted for.
- GNSS constellation orbital parameters (e.g. Galileo, GPS, SBAS, IRNSS and QZSS).
- User/Satellite distance and elevation angle. The link budget derivation shall provide results for Galileo satellites as a function of the elevation angle. It shall be possible to

select specific user/satellite geometry for a given GNSS constellation (e.g. largest distance or shortest distance and specific atmospheric conditions).

Thus, the work requested for Task 2 is as follows:

- § Consolidation of the set of relevant signal performance indicators.
- § Definition of all the signal and system parameters (e.g. signals, satellite and user characteristics) which are relevant to the performance assessment.
- § Identification of the methodologies and relevant theoretical formulations which are necessary to assess the various performance of the signals in different environments.

Duration: This activity will have a duration of 6 months starting at To.

#### I.4.2.2. Deliverables

Ref	Title	Delivery
D2	Report on the GNSS signals performance indicators and methodology	To+6 months

### I.4.3. TASK 3 – DEVELOPMENT OF THE SIMULATION TOOL

#### I.4.3.1. Description

The simulation tool shall be developed in Matlab (compatible with Matlab R2007a). Its code shall be open and well structured to facilitate any subsequent modifications by GSA. The user interface (for both inputs and outputs) shall be user-friendly and include visual capabilities. The contractor shall submit a prototype of the MMI for approval by GSA before full development. In addition, the relevant simulation parameters and output data shall be stored into files which can be easily exploited at a later stage.

Thus, the work requested for Task 3 is as follows:

- § Development of the simulation tool.
- § Development of a user guide for this tool.
- § Validation and test of the tool on some defined scenarios. The objective of this validation process is to ensure the simulation tool provides the expected outputs.

Duration: This activity will have a duration of 12 months starting at To.

#### I.4.3.2. Deliverables

Ref	Title	Delivery
D3.1	Interim report on the simulation tool development	To+6 months
D3.2	Proposed validation plan and detailed scenarios	To+6 months
D3.3	Simulation tool user guide	To+12 months
D3.4	Report on the simulation tool validation	To+12 months
SW	Simulation tool and licenses for Matlab modules/toolboxes required to run it (except the signal processing toolbox)	To+12 months

### 1.5. Project milestones and meetings

Progress meetings will be organized on a 3-monthly basis to present the status of the work and steer the next period. Moreover, two project reviews are foreseen with the objective to endorse the technical work performed by the contractor and approve related deliverables.

Consequently, the following meetings will be held between the Contractor and the GSA:

Project Milestone	Review	Venue	Objective	Schedule
Kick-Off Meeting	KOM	GSA	Authorization of the start of project activities by GSA; Clarify and settle open points and details of the project.	T0
Progress meeting	PM1	GSA	Present the status of the work and steer the next period.	T0 + 3 months
Intermediate Review	IR	GSA	Assess the accomplishment of the project over the first period of activities; Steer the activities for the period to come.	To + 6 months
Progress meeting	PM2	GSA	Present the status of the work and steer the next period.	T0 + 9 months
Final Acceptance Review	FAR	GSA	Draw conclusions on the project outcome. Collect recommendations for future work. Approve final deliverables. Disseminate accomplishments.	T0 + 12 months

### 1.6. Project duration

The project activities shall start at T0 and will end after a period of 12 months (after successful completion of the FAR).

### 1.7. Deliverables

#### 1.7.1. Reports and documents to produce

The precise nature of the deliverables and reports required is specified under each individual task description in section 1.4 above. The GSA shall have 30 days from receipt to approve or reject the reports and documents. Within 15 days of receiving the GSA's comments or request for clarification, the contractor will submit additional information or another report.

GSA may publish the results of the study. For this purpose, the tenderer must ensure that the results of the study are not subject to restrictions based on duties of confidentiality and/or third party's intellectual property rights, which might hinder the publication of the study or expose GSA to infringement claims by third parties. Should the tenderer intend to use information or data for the study, which might be subject to restrictions on publication, the tenderer must explicitly mention this fact in the bid.

#### 1.7.2. Report format and publication

3 copies of the reports shall be supplied in paper form and one copy in electronic form, either in MS Word or in HTML format.

#### I.8. Place of Performance

The task will be mainly performed at the Contractor's premises.

Meetings between the Contractor and the GSA shall be held at GSA's premises in Brussels (unless stated otherwise). All cost foreseen in the performance of the project, including travel costs shall be borne by the Contractor.

#### I.9. Contract Value

The maximum allocated budget for the contract is Eur 130.000.



## II. TERMS OF CONTRACT

In drawing up his offer, the tenderer should bear in mind the provisions of the draft Contract attached to this invitation to tender. Any limitation, amendment or denial of the terms of contract will lead to automatic exclusion from the procurement procedure.

GSA may, before the contract is signed, either abandon the procurement procedure or cancel the award procedure without the tenderers being entitled to claim any compensation.

### II.1. Terms of payment

Payments shall be made in accordance with the provisions specified in the service Contract.

### II.2. Financial guarantees

#### Guarantee on pre-financing

For any pre-financing higher than 100,000 EUR, a financial guarantee equivalent to the amount of the pre-financing will be requested.

Depending on the financial situation of the tenderer, GSA may ask for the financial guarantee for amounts lower than 100,000 EUR.

### II.3. Subcontracting

If the tenderer intends to subcontract part of the service, he shall indicate in his offer which part will be subcontracted and to what extent (% of the total contract value).

Tenderers must inform the subcontractor(s) that Article II.17 of the Contract will be applied to them. Once the Contract has been signed, Article II.13 of the above-mentioned contract shall govern the subcontracting.

### II.4. Legal form to be taken by the grouping of service providers to whom the contract is awarded

Groupings, irrespective of their legal form, may submit bids. Tenderers may, after forming a grouping, submit a joint bid on condition that it complies with the rules of competition. Such groupings (or consortium) must specify the company or person heading the project and must also submit a copy of the document authorising this company or person to submit a bid. If awarded, the contract will be signed by the company of the person heading the project, who will be, vis à vis GSA, the only contracting party responsible for the performance of this contract. Tenders from a consortium of firms or groups of service providers, contractors or suppliers must specify the role, qualifications and experience of each member of the consortium or group. Each member must provide all the necessary documents for assessing the bid as a whole with regard to the exclusion criteria, selection criteria (all of them) and award criteria.

### III. FORM AND CONTENT OF THE TENDER

#### III.1. General

Tenders must be written in one of the official languages of the European Union. However, and due to the technical nature of the project, tenders are invited to submit their bids (or at least the technical part thereof) preferably in English.

Tenders must be clear and concise, with continuous page numbering, and assembled in a coherent fashion (e.g. bound or stapled, etc...). Since tenderers will be judged on the content of their submitted bids, they must make it clear that they are able to meet the requirements of the specifications.

#### III.2. Structure of the tender

All tenders must include three sections i.e. an administrative, a technical and a financial proposal.

##### III.2.1. Section One: administrative proposal

This section must provide the following information, set out in the standard identification forms attached to these tender specifications (Annexes 1, 2, 3 and 4):

- Tenderers' identification (Annex 1)
  - All tenderers must provide proof of registration, as prescribed in their country of establishment, on one of the professional or trade registers or provide a declaration or certificate.
  - If the tenderer is a natural person, he/she must provide a copy of the identity card/passport or driving licence and proof that he/she is covered by a social security scheme as a self-employed person.

Each service provider (including subcontractor(s) or any member of a consortium or grouping) must complete and sign the identification forms in Annex 1 and also provide above-mentioned documents. However, the subcontractor(s) shall not be required to fill in or provide those documents when the services represent less than 10% of the contract.

- Financial identification (Annex 2)

The bank identification form must be completed and signed by an authorised representative of the tenderer. In the case of a grouping, this form must only be provided by the person heading the project.

- Legal entities (Annex 3)

The legal entity form in Annex 3 must be completed in and should be accompanied by requested supporting documents. In the case of a grouping, this form must only be provided by the person heading the project.

- Declaration regarding exclusion criteria (Annex 4)

Please refer to Article IV.1 below.

The tenderer shall also include in this section the documents required under Article IV.3.1 below (economic and financial capacity).

GSA reserves the right to request additional evidence in relation to the bid submitted for evaluation or verification purposes within a time-limit stipulated in its request.

### III.2.2. Section Two: Technical proposal

This section is of great importance in the assessment of the bids, the award of the contract and the future execution of any resulting contract.

Some guidelines are given below, but attention is also drawn to the award criteria, which define those parts of the technical proposal to which the tenderers should pay particular attention. The technical proposal should address all matters laid down in the specifications. The level of detail of the tender will be extremely important for the evaluation of the tender.

Tenderers shall describe as part of their technical proposal all prior experience relevant to perform the work requested. The technical proposal shall include a description of the relevant simulation tools already developed by the tenderers. The technical proposal shall include as well a critical analysis of the proposed approach for assessing GNSS signals performance indicators.

Tenderers shall submit, as part of the technical proposal, CVs for key personnel involved in the different tasks.

Tenderers must present in their bids a proposal on the methodology and the organisation of the work to carry out in the framework of the study. In particular, the technical proposal shall include a set of detailed work-package descriptions and will specify the interfaces to be established with external entities to perform the work required. The technical proposal shall include a detailed schedule. The technical proposal shall include a detailed allocation of task per partner. A detailed description of the deliverables shall also be presented. The technical proposal shall include a statement of compliance against all activities described in the statement of work.

Tenderers shall provide, as part of their technical proposal, a table indicating:

- IPR already existing and which the tendered intends to use for the scope of the study (background IPR).
- IPR property which the tender presumes to create in performance of the Contract (foreground IPR).
- Third party IPR which the tendered intends to use in performance of the Contract;
- Open source programmes or information which the bidder intends to use in performance of the Contract.
- Possible restrictions on the use of the results of the study due to third party's IPR or duties of confidentiality (see also point I.7.1).

The term IPR includes intellectual or industrial property rights as well as know-how and other information, which might be or is protected by a duty of confidentiality.

The technical proposal must provide all the information needed for the purpose of awarding the contract.

### III.2.3. Section Three: Financial proposal

All tenders must contain a financial proposal. The tenderer's attention is drawn to the following points:

- Prices must be quoted in euros, including the countries which are not in the euro-area. As far as the tenderers of those countries are concerned, they cannot change the amount of the bid because of the evolution of the exchange rate. The tenderers

choose the exchange rate and assume all risks or opportunities relating to the rate fluctuation.

- Prices must be fixed amounts and include all expenses, such as travel expenses and daily allowances.
- Prices should be quoted free of all duties, taxes and other charges, i.e. also free of VAT, as the Communities are exempt from such charges in the EU under Articles 3 and 4 of the Protocol on the Privileges and Immunities of the European Communities of 8 April 1965 (OJ L 152 of 13 July 1967). Exemption is granted to GSA by the governments of the Member States, either through refunds upon presentation of documentary evidence or by direct exemption. For those countries where national legislation provides an exemption by means of a reimbursement, the amount of VAT is to be shown separately. In case of doubt about the applicable VAT system, it is the tenderer's responsibility to contact his or her national authorities to clarify the way in which the European Community is exempt from VAT;
- Prices shall be fixed and not subject to revision during the performance of the contract.
- Bids must indicate the number of actual man-days needed to carry out the work split up per staff member involved
- For each category of staff involved in the project, the tenderer must specify:
  - § the total labour costs;
  - § the daily rates
  - § other categories of costs, indicating the nature of the cost, the total amount, the unit price and the quantity.

Bids involving more than one service provider (consortium) must specify the amounts indicated above for each provider.

## IV. ASSESSMENT AND AWARD OF THE CONTRACT

The assessment will be based on each tenderer's bid.

All the information will be assessed in the light of the criteria set out in these specifications. The procedure for the award of the contract, which will concern only admissible bids, will be carried out in three successive stages.

The aim of each of these stages is:

- 1) to check on the basis of the exclusion criteria, whether tenderers can take part in the tendering procedure;
- 2) to check on the basis of the selection criteria, the technical and professional capacity and economic and financial capacity of each tenderer;
- 3) to assess on the basis of the award criteria each bid which has passed the exclusion and selection stages.

A single framework contract will be concluded with the tenderer ranked best when the bids are evaluated.

### IV.1. Exclusion criteria (exclusion of tenderers)

To be eligible for participating in this contract award procedure, tenderers must not be in any of the following exclusion grounds<sup>1</sup>:

- (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 contracting authority 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;
- (e) they have been the subject of a judgement which has the force of *res judicata* for fraud, corruption, involvement in a criminal organisation or any other illegal activity detrimental to the Communities' financial interests;
- (f) following another procurement procedure or grant award procedure financed by the Community budget, they have been declared to be in serious breach of contract for failure to comply with their contractual obligations;

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<sup>1</sup> Article 93 of Council Regulation (EC, Euratom) No 1605/2002 of 25 June 2002 on the Financial Regulation applicable to the general budget of the European Communities (OJ L 248 of 16.9.2002)

#### IV.1.1. Evidence to be provided by the tenderers

1. GSA shall accept, as satisfactory evidence that the tenderer is not in one of the situations described in point (a), (b) or (e) above, the production of a recent extract from the judicial record or, failing that, a recent equivalent document issued by a judicial or administrative authority in the country of origin or provenance showing that those requirements are satisfied.
2. GSA accepts, as satisfactory evidence that the tenderer is not in the situation described in point (d) above, a recent certificate issued by the competent authority of the State concerned.

Where no such certificate is issued in the country concerned, it may be replaced by a sworn or, failing that, a solemn statement made by the interested party before a judicial or administrative authority, a notary or a qualified professional body in his country of origin or provenance.

The documents referred to in paragraph 1 and 2 shall relate to legal and/or natural persons including, if applicable with regard to points b) and e), company directors or any person with powers of representation, decision-making or control in relation to the tenderer.

The GSA may waive the obligation for the tenderers to submit documentary evidence if such evidence has already been submitted to it for another procurement procedure and provided the documents were issued not more than one year earlier and are still valid. In such cases, the tenderer must declare on his honour that the documentary evidence has already been provided in a previous procurement procedure, state the reference number and subject matter of the procedure, and confirm that there has been no change in the situation.

#### IV.1.2. Other cases of exclusion

Contracts will not be awarded to tenderers who, during the procurement procedure:

- a) are subject to a conflict of interest;

Tenderers must declare:

- that they do not have any conflict of interest in connection with the contract; a conflict of interest could arise in particular as a result of economic interests, political or national affinities, family or emotional ties, or any other relevant connection or shared interest;
- that they will inform the contracting authority, without delay, of any situation constituting a conflict of interest or which could give rise to a conflict of interest;
- that they have not made and will not make any offer of any type whatsoever from which an advantage can be derived under the contract;
- that they have not granted and will not grant, have not sought and will not seek, have not attempted and will not attempt to obtain, and have not accepted and will not accept, any advantage, financial or in kind, to or from any party whatsoever, constituting an illegal practice or involving corruption, either directly or indirectly, as an incentive or reward relating to the award of the contract.

GSA reserves the right to check the above information.

- b) are 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.

#### IV.1.3. Declaration

Tenderers must fill in and sign the form attached to the specifications (Annex 4).

Where the bid involves more than one service provider (consortium or grouping), each provider must fill in and return the form, as well as the evidence specified in pt IV.1.1.

Subcontractors (when the subcontracted part exceeds 20% of the contract) must only provide the form in Annex 4.

Bids submitted by tenderers which have not provided the abovementioned documents may not be taken into consideration.

GSA reserves the right, however, to request any document relating to the proposed tender for evaluation and verification purpose, within a delay fixed in its request.

#### IV.2. Administrative and financial penalties

1. Without prejudice to the application of penalties laid down in the contract, candidates or tenderers and contractors who have been guilty of making false declarations or have been found to have seriously failed to meet their contractual obligations in an earlier procedure will be excluded from all contracts and grants financed by the Community budget for a maximum of two years from the time when the infringement is established, as confirmed after an adversarial procedure with the contractor.

That period may be extended to three years in the event of a repeat offence within five years of the first infringement.

Tenderers or candidates who have been guilty of making false declarations will also incur financial penalties representing 2% to 10% of the total value of the grant being awarded.

Contractors who have been found to have seriously failed to meet their contractual obligations will incur financial penalties representing 2% to 10% of the value of the grant in question.

This rate may be increased to 4% to 20% in the event of a repeat offence within five years of the first infringement.

2. In the cases referred to in points IV.1, a), c), d), the candidates or tenderers will be excluded from all contracts and grants for a maximum of two years from the time when the infringement is established, as confirmed after an adversarial procedure with the contractor.

In the cases referred to in points IV.1, b) and e), the candidates or tenderers will be excluded from all contracts and grants for a minimum of one year and a maximum of four years from the date of notification of the judgment. Those periods may be extended to five years in the event of a repeat offence within five years of the first infringement or the first judgment.

3. The cases referred to in point IV.1, e) cover:

a) cases of fraud as referred to in Article 1 of the Convention on the protection of the European Communities' financial interests established by the Council Act of 26 July 1995 (OJ/C 316 of 27.11.1995, p. 48);

b) cases of corruption as referred to in Article 3 of the Convention on the fight against corruption involving officials of the European Communities or officials of Member States of the European Union, established by the Council Act of 26 May 1997 (OJ/C 195 of 25.6.1997, p. 1);

c) cases of participation in a criminal organisation, as defined in Article 2(1) of Joint Action 98/733/JHA of the Council (OJ/L 315 of 29.12.1998, p. 1);

d) cases of money laundering as defined in Article 1 of Council Directive 91/308/EEC (OJ/L 166 of 28.6.1991, p.77).

#### IV.3. SELECTION CRITERIA (SELECTION OF TENDERERS)

To be eligible, the tenderers must have the economic and financial capacity as well as the technical and professional capacity to perform the tasks required in this call for tender.

#### IV.3.1. Economic and financial capacity – References required

Tenderers must provide proof of their financial and economic capacity by means of the following documents: the balance sheets or extracts from balance sheets for the last three financial years, and a statement of overall turnover and turnover relating to the relevant services for the last three financial years.

This rule applies to all service providers, regardless of the percentage of tasks they intend to execute, once they have chosen to submit a tender. However, if the tender includes subcontractors whose tasks represent less than 20% of the contract, those subcontractors are not obliged to provide evidence of their economic and financial capacity.

#### IV.3.2. Technical and professional capacity – References required

Tenderers must provide evidence of their technical and professional competence on the following points:

- § Very good knowledge of the Galileo system and of other GNSS systems
- § Experience in projects within the European GNSS Programme
- § Very good knowledge of Galileo signals and other GNSS signals
- § Very good knowledge of GNSS signals performance assessment
- § Very good knowledge of signal-related simulation tools development

If several service providers/subcontractors are involved in the bid, each of them must have and show that they have the professional and technical capacity to perform the specific tasks assigned to them.

Tenderers should provide with their bid detailed curriculum vitae of each staff member responsible for carrying out the work, including his or her educational background, degrees and diplomas, professional experience, research work, publications and linguistic skills.

The CV's shall be presented, preferably, in accordance to the Commission Recommendation on a common European format for curricula vitae, published in OJ L79 of 22 March 2002, p. 66.

#### IV.4. EVALUATION OF TENDERS – AWARD CRITERIA

The contract will be awarded according to the criteria given below, on the basis of the economically most advantageous tender.

Only bids that have reached a total technical score of a minimum of 70% and a minimum score of 60 % for each technical criterion will be taken into consideration for awarding the contract.

##### a) Technical evaluation criteria as weighted

N°	Award Criteria	Weighting
1	Understanding of the requirements and objectives and discussion of problem areas: <ul style="list-style-type: none"> <li>- Quality of content of the technical proposal:               <ul style="list-style-type: none"> <li>.Bidder analysis of the requirements</li> <li>.Understanding of the environment under which the study is conducted (knowledge of GNSS signals and their performance)</li> <li>.Understanding of the GSA's needs and preliminary analysis of solutions</li> <li>.Critical review of the requirements</li> </ul> </li> </ul>	30



	.Analysis of interface requirements between the different tasks - Compliance to Statement of Work - Completeness - Relevance of proposed options	
2	Quality and suitability of proposed programme of work; adequacy of approach -Relative efforts for each activities -Adequacy of allocation of tasks per partners -Quality of Work Package Description -Confidence the work programme is appropriate to meet the requirement	40
3	Adequacy of management, and planning for the execution of the work -Adequacy of reporting scheme -Adequacy of management level of effort -Quality of proposed planning	30
Total number of points		100

b) Total price

Total number of points for price: X (Where X is the highest score for technical evaluation reached by an eligible offer).

Score for price for offer (a) will be then be computed as follows:  $X * \text{lowest price among eligible offers} / \text{price of offer (a)}$

The contract will be awarded to the tenderer which offers the best quality price score as measured by the following formula:

$70\% * (\text{Total number of points for technical evaluation}) + 30\% * (\text{Total number of points for price})$

#### IV.5. Information for tenderers

GSA will inform tenderers of decisions reached concerning the award of the contract, including the grounds for any decision not to award a contract or to recommence the procedure.

If a written request is received, GSA will inform all rejected tenderers of the reasons for their rejection and all tenderers submitting an admissible tender of the characteristics and relative advantages of the selected tender and the name of the successful tenderer.

However, certain information may be withheld where its release would impede law enforcement or otherwise be contrary to the public interest, or would prejudice the legitimate commercial interests of economic operators, public or private, or might prejudice fair competition between them.

#### IV.6. Annexes

1. Identification of the Tenderer
2. Financial Identification
3. Legal Entity Form
4. Declaration by the Tenderer (relating to the exclusion criteria)
5. Draft Contract

## ANNEX 1

### IDENTIFICATION OF THE TENDERER

(Each service provider, including subcontractor(s) or any member of a consortium or grouping, must complete and sign this identification form)

Call for tender GSA/OP/11/08

Identity	
Name of the tenderer	
Legal status of the tenderer	
Date of registration	
Country of registration	
Registration number	
VAT number	
Description of statutory social security cover (at the level of the Member State of origin) and non-statutory cover (supplementary professional indemnity insurance) <sup>2</sup>	
Address	
Address of registered office of tenderer	
Where appropriate, administrative address of tenderer for the purposes of this invitation to tender	
Contact Person	
Surname: First name: Title (e.g. Dr, Mr, Ms) : Position (e.g. manager): Telephone number: Fax number: E-mail address:	

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<sup>2</sup> For natural persons

Legal Representatives	
Names and function of legal representatives and of other representatives of the tenderer who are authorised to sign contracts with third parties	
Declaration by an authorised representative of the organisation <sup>3</sup>  I, the undersigned, certify that the information given in this tender is correct and that the tender is valid.	
Surname: First name:	Signature:

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<sup>3</sup> This person must be included in the list of legal representatives; otherwise the signature on the tender will be invalidated.

ANNEX 2 - Financial Form  
(to be completed by the tenderer)

The tenderer's attention is drawn to the fact that this document is a model and that a specific Financial Form for each Member State is available at the following Internet address:  
<http://gsa.europa.eu/>, under the "Procurement" section.

## FINANCIAL IDENTIFICATION

<b><u>ACCOUNT HOLDER</u></b>	
NAME	<input type="text"/>
ADDRESS	<input type="text"/>
TOWN/CITY	<input type="text"/>
COUNTRY	<input type="text"/>
POSTCODE	<input type="text"/>
VAT NUMBER	<input type="text"/>
CONTACT PERSON	<input type="text"/>
TELEPHONE	<input type="text"/>
FAX	<input type="text"/>
E - MAIL	<input type="text"/>

<b><u>BANK</u></b>	
BANK NAME	<input type="text"/>
BRANCH ADDRESS	<input type="text"/>
TOWN/CITY	<input type="text"/>
COUNTRY	<input type="text"/>
POSTCODE	<input type="text"/>
ACCOUNT NUMBER	<input type="text"/>
IBAN (optional)	<input type="text"/>

**REMARKS :**

<b><u>BANK STAMP + SIGNATURE of BANK REPRESENTATIVE</u></b> <b><u>(Both Obligatory)</u></b>

<b><u>DATE + SIGNATURE of ACCOUNT HOLDER :</u></b> <b><u>(Obligatory)</u></b>

ANNEX 3 - Legal Entity Form  
(to be completed by the tenderer)

The tenderer's attention is drawn to the fact that this document is a model and that a specific Legal Entity Form for each Member State is available at the following Internet address: <http://gsa.europa.eu/> under the "Procurement" section.

Please note that we can only accept either original documents or certified copies, which must be less than 6 months old.

In the case of a grouping, this form must only be provided by the person heading the project.

ANNEX 4

DECLARATION BY THE TENDERER

Each service provider, including subcontractor(s) or any member of a consortium or grouping, must sign this identification form

1. In accordance with Article 93 of the Financial Regulation of the European Communities (Council Regulation 1605/2002 of 25.6.2002) published in Official Journal L 248 of 16 September 2002, I declare on my honour that I am not in any of the following situations which would exclude me from participating in this procurement procedure:
  - a) I am not bankrupt, being wound up or having my affairs administered by the courts, I have not entered into an arrangement with creditors, I have not suspended business activities, I am not the subject of proceedings concerning any such matters, and I am not in any similar situation arising from a similar procedure provided for in legislation or regulations;
  - b) I have not been convicted of an offence concerning my professional judgement by a judgment which has the force of res judicata;
  - c) I have not been found guilty of grave professional misconduct proven by any means which the contracting authority can justify;
  - d) I have not failed to fulfil 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 I am established or with those of the country or the contracting authority or those of the country where the contract is to be performed;
  - e) I have not been the subject of a judgment which has the force of res judicata for fraud, corruption, involvement in a criminal organisation or any other illegal activity detrimental to the Communities' financial interests;
  - f) as a consequence of another procurement or grant procedure financed by the Community budget, I have not been declared to be in serious breach of contract for failure to comply with my contractual obligations,
2. In addition, the undersigned declares on his or her honour:
  - a) that on the date of submission of the tender, the company or organisation I do represent and the staff proposed for this tender are not subject to a conflict of interests in the context of this invitation to tender; I undertake to inform GSA without delay of any change to this situation after the date of submission of the tender.
  - b) that the information provided to GSA within the context of this invitation to tender is accurate, sincere and complete.

Done at ..... on.....

Company.....

Name .....

Title .....

Signature: