

Tender specifications
Attached to the Invitation to tender

**Invitation to tender N° EMSA /OP/17/2015 for ICT services related to: corrective maintenance,
operational support and system integration of the CleanSeaNet Data Centre**

Summary

Contracting authority	The European Maritime Safety Agency
Purpose	<p>The objective is to establish a Framework Service Contract, for one year duration and renewable up to 3 years, for the provision of ICT services related to the maintenance, operational support (3rd line helpdesk) and system integration of the CleanSeaNet Data Centre (CSNDC).</p> <p>Following its entering into force, EMSA will implement the Framework Contract through various specific contracts related to the tasks described in Modules 1 and 2 below.</p>
Type of tasks	<p>Module 1 Corrective maintenance including helpdesk for application incident management.</p> <p>Module 2 Upgrading and implementing the changes in order to integrate the CSNDC software components with the Earth Observation Data Centre (this shall result in one or more specific contracts).</p>
Budget	The maximum budget for the framework contract over 3 years is EUR 460.000, divided as follows Module 1: up to EUR 120.000 yearly renewable at the fixed price, Module 2: up to EUR 100.000.
Type of Contract	The framework contract is expected to be signed during 4 th quarter of 2015.
Duration of framework contract	Three years. Each Specific Contract under <u>Module 1</u> will have a duration of 12 months, renewable at a fixed price specified by the bidder in the offer. The Specific Contracts shall be executed no later than 6 (six) months after the expiry date of the Framework Contract. The requirements for Specific Contracts under <u>Module 2</u> will be implemented on the grounds of technical specifications annexed to each new specific contract, insofar as they are in line with the scope and conditions defined under the Framework Contract.
Places of delivery	The place of performance of the activities shall be the contractor's premises. In exceptional cases and when stipulated in the relevant specific contract, the necessity to deliver services in other locations, such as EMSA premises at Praça Europa, nº 4 in Lisbon may occur for a limited period of time.
Particulars of delivery	Services will be carried out by the contractor during normal working days/hours.
Variants	Not permitted
Joint offers	Permitted
Subcontracting	Permitted.

Abbreviations

The following table includes a list of abbreviations commonly used in these technical specifications.

Abbreviation	Definition
AIS	Automatic Identification System
API	Application Programming Interface
BCF	Business Continuity Facility
COTS	Commercial Off The Shelf
CTM	Criticality/Time Matrix
CSN	CleanSeaNet
CSNDC	CleanSeaNet Data Centre
COTS	Commercial off-the-Shell
CMC	Control Management Console
EICD	External Interface Control Document
EC	European Commission
EMSA	European Maritime Safety Agency
ENC	Electronic Nautical Chart
EO	Earth Observation
EO DC	Earth Observation Data Centre
EOS	Earth Observation System
EU	European Union
FTP	File Transfer Protocol
FWC	Framework Contract
GIS	Geographic Information System
GML	Geography Markup Language
GUI	Graphic User Interface
HTTP	Hypertext Transfer Protocol
ICD	Interface Control Document
ICM	Installation and Configuration Manual
ICT	Information and Communications Technology
IdM	Identity Manager (an Oracle application)
IHP	Incident Handling Procedures
INS	Installation Manual
IMDatE	Integrated Maritime Data Environment

Abbreviation	Definition
IT	Information Technology
IPR	Intellectual Property Rights
LRIT	Long Range Identification and Tracking.
MAP	Maritime Application Portal
MARSURV	Maritime Surveillance
M5D	Message Digest Algorithm
MSS	Maritime Support Services
MSs	Member State(s)
NCA	National Competent Authority
NRT	Near Real Time
OMM	Operational and Maintenance Manual
RDF	Resource Description Framework
REST	REpresentational State Transfer
RPM	Red Hat Package Manager
ROA	Resource Oriented Architecture
S2S	System to System
SO	Satellite Owner
SOA	Service Oriented Architecture
SOAP	Simple Object Access Protocol
SP	Service Provider
SRS	Software Requirements Specifications
SSN	SafeSeaNet
STP	Software Test Plan
TDD	Technical Design Document
TF	TeamForge
TS	Technical Specifications
VAS	Value-Added Service
VDS	Vessel Detection System
WWW	World Wide Web
XML	Extensible Markup Language

Glossary

Terms specific to Maritime domain

The following table includes a glossary of the relevant terms commonly used in this TS and specific to Maritime domain.

Term	Definition
AIS	The Automatic Identification System (AIS) is an automatic tracking system used on ships and by vessel traffic services (VTS) for identifying and locating vessels by electronically exchanging data with other nearby ships, AIS base stations, and satellites.
CSN	CSN is a satellite based monitoring system for marine oil spill detection and surveillance in European waters. The service is operated by EMSA and provides a range of detailed information including oil spill alerts to Member States, rapid delivery of available satellite images and oil slick positions. More information at: https://csndc.emsa.europa.eu/homepublic
EMSA	EMSA provides technical assistance and support to the European Commission and Member States in the development and implementation of EU legislation on maritime safety, pollution by ships and maritime security. To do this, one of EMSA's most important supporting tasks is to improve cooperation with, and between, MSs in all key areas. In addition, the Agency has also been given operational tasks in the field of oil pollution response, vessel monitoring and in long range identification and tracking of vessels. As a body of the EU, the Agency sits at the heart of the EU maritime safety network and collaborates with many industry stakeholders and public bodies, in close cooperation with the EC. More info at: www.emsa.europa.eu
ENC	ENC means the database, standardized as to content, structure and format, issued for use with ECDIS on the authority of government authorized hydrographic offices. The ENC contains all the chart information necessary for safe navigation and may contain supplementary information in addition to that contained in the paper chart (e.g. sailing directions) which may be considered necessary for safe navigation (IMO resolution A.817 (19)).

Terms specific to the Earth Observation domain

The following table includes a glossary of the relevant terms commonly used in this TS and specific to Earth Observation domain.

Term	Definition
Coverage	Coverages represent digital geospatial information representing space/time-varying phenomena.
Dataset	Dataset is a collection of data, vector or raster.
Dataset series	Dataset series is a temporal collection of datasets.
Earth observation	Earth observation is the gathering of information via remote sensing technologies supplemented by earth surveying techniques, encompassing the collection, analysis and presentation of geospatial data.
Geospatial	Geospatial are data and software components which deal with a geographic attributes.
Geospatial service	Geospatial service is a web service that delivers geospatial data.
GML	The Geography Markup Language (GML) is the XML grammar defined by the Open Geospatial Consortium (OGC) to express geographical features. GML serves as a modelling language for geographic systems as well as an open interchange format for geographic transactions on the Internet.
Ingestion	In this document ingestion has to be considered as synonymous of Data Acquisition (see the Background section).
Metadata	A Metadata is a document, typically in XML format, that describes the content of a dataset or a geospatial service.
Process	A process is a software component that transforms data, provides services, or extracts information.
Raster	Raster dataset is a representation of the plant Earth as a surface divided into a regular grid of cells. Raster models are useful for storing data that varies continuously, as in an aerial photograph, a satellite image, a surface of chemical concentrations, or an elevation surface.
Satellite Owner	Satellite Owner is an organization that operate satellites.
Near-real-time	In the context of its use in CSN the term "near-real-time" refers the delay between the download of satellite images and the availability of this information through the CSNDC web services. This delay shall be less than 30 minutes.

SAR	(As Synthetic Aperture Radar). SAR is a form of radar in which multiple radar images are processed to yield higher-resolution images than would be possible by conventional means. Either a single antenna mounted on a moving platform (such as an airplane or spacecraft or satellite) is used to illuminate a target scene or many low-directivity small stationary antennas are scattered over an area near the target area. The many echo waveforms received at the different antenna positions are post-processed to resolve the target. SAR can only be implemented by moving one or more antennas over relatively immobile targets, by placing multiple stationary antennas over a relatively large area, or combinations thereof. SAR has been extensively used in remote sensing and mapping. SAR images are used in VDS.
Sensors	Sensors Within the context of earth observation, sensors are satellite, UAV, in situ or airborne devices which collect geospatial data.
Service Provider	“Service Provider” is an organization in charge to analyse an Earth Observation product in order to extract the information expected by the EMSA’s EODC and deliver it to the EOS.
Spatial Data Infrastructure	A Spatial Data Infrastructure a set of Geospatial services orchestrated in order to provide a Service.
Vector	Vector dataset is a representation of the planet Earth using points, lines, and polygons. Vector dataset are useful for storing data that has discrete boundaries, such as features, cost lines.

Terms specific ICT or Project Management domain

The following table includes a glossary of the relevant terms commonly used in this TS and specific to ICT or Project Management domain.

Term	Definition
API	In computer programming, an application programming interface (API) is a set of routines, protocols, and tools for building software applications. An API expresses a software component in terms of its operations, inputs, outputs, and underlying types
Application	An application is a software component designed to help the user perform specific tasks.
Building Block	A Building Blocks comprises a set of subsystem that can be configured to fit an application purpose.
Client	A client is a piece of computer hardware or software that accesses a service made available by a server.
Data Centre	A Data Centre is a facility used to house computer systems and associated components, such as telecommunications and storage systems.
JSON	JSON is a lightweight data-interchange format. It is based on a subset of the JavaScript Programming Language
Interface	An interface is a shared boundary across which two separate components of system exchange information.

Interoperability	Within this context is the ability of systems to exchange information and accept services from other systems, in order to enable them to operate effectively together.
MD5	The MD5 is a message-digest algorithm is a widely used cryptographic hash function producing a 128-bit (16-byte) hash value, typically expressed in text format as a 32 digit hexadecimal number. MD5 is utilized in this TS to verify data integrity.
Process	A process is a software component that transforms data, provides services, or extracts information.
RDF	RDF is a family of World Wide Web Consortium (W3C) specifications. It has come to be used as a general method for conceptual description or modelling of information that is implemented in web resources.
Sensors	Sensors Within the context of earth observation, sensors are satellite, UAV, in situ or airborne devices which collect geospatial data.
Server	A server is a running instance of an application (software) capable of accepting requests from a client and giving responses accordingly. Servers can run on any computer including dedicated computers, which individually are also often referred to as "the server"
Service	Service "Means of delivering value to the customer by facilitating the outcomes customer want to achieve, without the ownership of specific costs and risks" (ITIL definition).
System	A system is a set of interacting or interdependent building blocks forming an integrated whole.
System to System	System to system is a type of interaction between two systems governed by specified interfaces.
Solution	The solution is the system implemented by the contractor
Standard	A standard is an established norm or requirement in regard to technical systems. It is usually a formal document that establishes uniform engineering or technical criteria, methods, processes and practices.
Subsystem	A subsystem is a self-contained software component that provides a set of functionalities.
SWOT	A SWOT analysis is a structured method used to evaluate the strengths, weaknesses, opportunities and threats of topic to address.
User interface	Everything designed into an IT system which includes one or more applications which a human being may interact with. This includes, but is not restricted to: display screen, keyboard, mouse, light pen, desktop appearance, illuminated characters, help messages, and how an application program or a Web site invites interaction and responds to it.
Web service	A web service a subsystem designed to support interoperable machine-to-machine interaction over internet.
Workflow	A workflow consists of an orchestrated and repeatable pattern of processes.

XML	XML is a markup language that defines a set of rules for encoding documents in a format which is both human-readable and machine-readable. It is defined by the W3C's XML 1.0 specifications and by several other related specifications, all of which are free open standards.
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Terms specific to this FWC

Term	Definition
Operational support or Helpdesk	Remote support to EMSA for the analysis and diagnosis of identified problems in the software application or hotfixes that are delivered under Modules 1.
Incident management and corrective maintenance	Within the scope of activities to be covered by a specific contract on IT helpdesk activities are the functional, non –functional and security related issues affecting CSNDC to be identified in the contract. Issues can be detected either by EMSA staff or an EMSA contractor and/ or MS users. A functional issue may relate to: <ul style="list-style-type: none">a. A “bug” (deviation of the system from the agreed specifications; and/ orb. Changes of minor scale in the system behaviour

Requirements

1. Introduction

The European Maritime Safety Agency (EMSA) was established under Regulation 1406/2002/EC for the purpose of ensuring a high, uniform and effective level of maritime safety. Among its tasks, Directive 2005/35/EC (as amended by Directive 2009/123/EC) tasked the European Maritime Safety Agency (hereafter EMSA or Agency) to develop technical solution and provide technical assistance for monitoring ship source pollution. Accordingly, the Agency has implemented a satellite based oil and vessel detection service called CleanSeaNet. For the purpose of providing the CleanSeaNet service, EMSA has set-up the CleanSeaNet data centre (CSNDC) which started operations in February 2011.

CleanSeaNet offers to authorised Coastal States a near real time (NRT) marine oil detection service using radar satellite imagery. The service is integrated within the national and regional oil pollution surveillance and response chains of the Coastal States, and aims at strengthening operational response for accidental and deliberate discharges from ships as well as assisting Coastal States to locate and identify polluters in areas under their jurisdiction.

The CSNDC provides two main functionalities to the Coastal States:

1. **Alerting system:** in the case of a detected oil slick, an alert is delivered to the relevant Coastal State operational contact point responsible for monitoring of ship sourced pollution at national level. The alert message can be transmitted via a phone call or Email;
2. **Access to oil and vessel detection results via the CleanSeaNet Portal:** The CleanSeaNet portal is a web application which allows the user to view satellite imagery, with oil spill detection analysis results, wind data and other additional information. The CSN Portal also includes a tool to manage the ordering of satellite images. High resolution images are provided by EMSA to the user upon request.

It is important to notice that the general objective of an operational monitoring system is to enable the users to have an immediate and complete overview of the situation. Within this context CleanSeaNet shall provide information from different and very dynamic Earth Observation (EO) data sources, to be combined with other valuable sources of information such as vessel tracking, oil spill drift modelling and in-situ data sources, thus CleanSeaNet, both the system (CSNDC) and the service (CSN) need to be maintained operational.

2. Objective, scope and description of the contract

The objective of this procurement procedure is to establish a Framework Service Contract for corrective maintenance, operational support and system integration of the CleanSeaNet Data Centre (CSNDC). The Framework Service Contract shall be for maximum duration of three years.

The framework contract comprises two modules, Module 1 for corrective maintenance and operational support (helpdesk), and Module 2 for system integration. Both Module 1 and Module 2 will be implemented by specific contracts. For Module 1 each specific contract will last for a period of one year

and shall have fixed price. Module 2 will be implemented based on technical specifications which define the scope of each specific contract.

2.2. Scope

The following types of services could be contracted under the FWC:

1. The helpdesk and corrective maintenance services for the software implemented within the context of the CleanSeaNet Data Centre and its further changes.
2. The scope of this service is to implement the necessary changes on the CSNDC components in order to integrate them into the SafeSeaNet Ecosystem (for details see Appendix SafeSeaNet Ecosystem).

The Framework Contract is structured in the following types of modules:

- | | |
|-----------------|--|
| Module 1 | Corrective maintenance including helpdesk for application incident management. Module 1 services will be requested by EMSA to the contractor based on specific contracts of the duration of one year renewable, for the duration of the framework contract. The technical specifications of the specific contracts for this module are in the Appendix 13. |
| Module 2 | The changes of the CSNDC components identified during the course of the Framework Contract will be requested by EMSA to the contractor based on specific contracts. |

Basic information on the SafeSeaNet Ecosystem architecture is provided in Appendix 12. Furthermore, in order to have a full picture of the technologies adopted in EMSA, the bidders shall also take into account the EMSA System and Application Technical Landscape (see Appendix 7).

The architecture of the CSNDC and its interfaces are described in the Appendices 2 and 3 of these tender specifications.

2.1 Module 1

Appendix 13 of these tender specifications provides the relevant CSNDC corrective maintenance and operational support requirements. The contractor will, *inter-alia*, carry out the following tasks:

- a. Control the processing of incidents, reported by EMSA support team and Maritime Support Services, and keep EMSA informed on the status of issues;
- b. Analyse incidents causing unforeseen service interruption and provide feedback to help the required interventions for repair or maintenance by EMSA or its contractors;
- c. Perform changes to the application code to correct errors;
- d. Support the back-up and recovery in case of failure;
- e. Analyse performance bottle-necks;

- f. Support the definition of specific probes for monitoring the GUI in the production environment.

These tasks will be performed respecting at least the minimal procedures and minimum service levels prescribed in Appendices 13, 8 and 9.

2.2 Module 2

The contractor will, *inter-alia*, carry out the following tasks for enhancements and new developments:

- a. Analysis of user requirements;
- b. Review business service interfaces;
- c. Propose interface with integration layer;
- d. Prototyping;
- e. Development/Coding;
- f. Factory acceptance tests (FAT);
- g. Packaging and software delivery;
- h. Support to Site acceptance tests (SAT);
- i. Deliver automated test scripts and code;
- j. Full system documentation, including, inter-alia, design documentation, installation instructions, system security guidelines, internal interface definitions, test plans and user manual.

2.3 Team structure

The tenderer shall propose a team consisting as a minimum of the following members:

- Project manager.
- Software architect.
- Senior and Junior application developer.
- Data base administrator.
- Release manager.
- Test manager.
- Problem and Incident managers.

2.4 General Conditions for the Provision of Services

Language

The working language of EMSA is English. The English language shall be used throughout the duration of any activities associated with this Framework Contract for all communication, reports and other documentation.

Since the contractor will need to work exclusively in English, as stated above in these tender specifications, the technical documents part of this tender dossier are provided in English language only. Should the tenderers wish to read the outline of this tender in other languages, they may consult the Contract Notice available under: <http://ted.europa.eu/TED/misc/chooseLanguage.do>

Used products and infrastructure

The technologies and tools to be used for the provision of services are listed in the Appendices to these tender specifications. The personnel providing the service will use only the standard software utilised at the Agency (see Appendix 7), and no other software may be installed or used without the prior written authorisation of EMSA.

Third party licences for products used in the software implementation

The offers for service and associated specific contracts should, unless explicitly agreed otherwise, cover the costs of any licence or product required to perform the service.

Place of work and access to EMSA environments

The place of work for the tasks shall be the contractor's premises. Occasionally EMSA can request to do the tasks described within this Framework Contract in the EMSA premises (see Appendix 13). VPN access could be provided to the EMSA infrastructure for the CSNDC test environments, on the basis of the signature of conditions of use regarding security.

For Module 1 the contractor shall participate at a bi-annual meetings (twice a year), one meeting every six months since the signature of the contract. Bi-annual meetings shall take place at EMSA premises. If requested by the contractor, and accepted by EMSA, the meeting can be held by a phone, video conference, or at contractor premises.

Working time

Except for the helpdesk task and corrective maintenance, the work shall be carried out within the normal working hours/days of EMSA (a calendar will be provided to the contractor when available, usually three months before the end of the previous year). Office hours are from 9.30 a.m. to 5.30 p.m. on normal working days.

Under exceptional circumstances and with the previous agreement between EMSA and the contractor, work might be performed outside of normal working hours/days.

Tests and audits

As a European body, EMSA itself or its external contractors might perform any kind of test or audit on the services provided by the contractor awarded the framework contract following this tender procedure. Checks and audits could in particular be performed in accordance with article II.18 of the General Conditions to the draft Framework contract.

Project team

EMSA reserves the right to evaluate any change or new nomination of members to the contractor's project team. CVs and appropriate documentation of each person foreseen to take up duties shall be presented to EMSA for approval with respect to Specific Requests for Services but in any case at least 15 days before the schedule start date of a specific contract.

Minutes of the meetings

The contractor shall draw up the minutes of the meetings (for example the bi-annual meetings). The minutes shall be delivered within seven working days since the date of the meeting for the EMSA approval. If the minutes are rejected by EMSA, the contractor shall have seven working days to revise the minutes according to the comments provided.

2.4 The nature of the contracts

2.4.1 Framework contract

The contract deriving from this procurement procedure is a framework service contract following the template published with these tender specifications. It should be stressed that Framework Contracts involve no direct commitment and, in particular, do not constitute orders per se. Instead, they lay down the legal, financial, technical and administrative provisions governing the relationship between EMSA and the Contractor during their period of validity. The draft Framework Contract specifies the basic conditions applicable to any assignment placed under its terms.

2.4.2. Specific contracts

Actual orders will be placed after the Framework Contract is signed and in force, through "Specific Contracts" concluded in performance of the Framework Contract.

3. Contract management responsible body.

The European Maritime Safety Agency – Unit C.3, in charge of Information Services Technical Management will be responsible for managing the contract.

4. Project Planning

The deliverables under Module 1 are described in Appendix 13 to these tender specifications. The deliverables of Module 2 will be specified within Module 2 specific contracts.

5. Timetable

The estimated date for signature of the contract is October 2015.

The kick-off meeting is foreseen to take place within 2 weeks from the signature of the contract at the EMSA premises. The kick-off meeting has to be considered as an additional meeting, on top of the bi-annual meeting. The kick-off Meeting is the first meeting between EMSA and the contractor, the scope of this meeting is to clarify mainly objectives, timetable, and expected results of the contract.

6. Estimated Value of the Contract

The maximum budget available for this contract is of EUR 460.000 excluding VAT.

The maximum price of the services relating to each specific contract of Module 1 should not be more than EUR 120.000 excluding VAT per year. The maximum budget allocated for Module 2 is EUR 100.000 excluding VAT.

7. Terms of payment

Payments shall be issued in accordance with the provisions of the **draft Framework contract** available on the Procurement Section under the call to tender EMSA/OP/17/2015 on the EMSA website at the following address: www.emsa.europa.eu

8. Terms of contract

In drawing up a bid, the tenderer should bear in mind the terms of the draft Framework contract. EMSA may, before the contract is signed, either abandon the procurement or cancel the award procedure without the tenderers being entitled to claim any compensation.

9. Sub-contracting

If the tenderer intends to either sub contract part of the work or realise the work in co-operation with other partners he shall indicate in his offer which part will be subcontracted, as well as the name and qualifications of the subcontractor or partner. (NB: overall responsibility for the work remains with the tenderer).

The tenderer must provide required evidence for the exclusion and selection criteria on its own behalf and when applicable on behalf of its subcontractors. The evidence for the selection criteria on behalf of subcontractors must be provided where the tenderer relies on the capacities of subcontractors to fulfil selection criteria¹. The exclusion criteria will be assessed in relation to each economic operator individually. Concerning the selection criteria, the evidence provided will be checked to ensure that the tenderer and its subcontractors as a whole fulfil the criteria.

10. Requirements as to the tender

Bids can be submitted in any of the official languages of the EU. The working language of the Agency is English. Bids must include an English version of the documents requested under point 14.5 & 15.1 of the present tender specifications.

The tenderer shall complete Tenderer's checklist.

If the tenderer intends to either sub contract part of the work or realise the work in co-operation with other partners (Joint Offers) he shall indicate in his offer by completion of the form – Information regarding joint offers and subcontracting.

The tender must be presented as follows and must include:

Signed cover letter indicating the name and position of the person authorised to sign the contract and the bank account on which payments are to be made.

¹ To rely on the capacities of a subcontractor means that the subcontractor will perform the works or services for which these capacities are required.

Financial Form completed, signed and stamped; available on the Procurement Section (Financial Form) on the EMSA Website at the following address: www.emsa.europa.eu

Legal Entity Form completed, signed and stamped and requested accompanying documentation, available on the Procurement Section (Legal Entity Form) on the EMSA Website at the following address: www.emsa.europa.eu

Tenderers are exempt from submitting the Legal Entity Form and Financial Form requested if such a form has already been completed and sent either to EMSA or any EU Institution previously. In this case the tenderer should simply indicate on the cover letter the bank account number to be used for any payment in case of award.

Part A: all the information and documents required by the contracting authority for the appraisal of tenders on the basis of the points **13, 14.2-14.3** of these specifications (part of the Exclusion criteria)

Part B: all the information and documents required by the contracting authority for the appraisal of tenders on the basis of the **Economic and Financial capacity** (part of the Selection criteria) set out under point **14.4** of these specifications;

Part C: all the information and documents required by the contracting authority for the appraisal of tenders on the basis of the **Technical and professional capacity** (part of the Selection Criteria) set out under point **14.5** of these specifications.

Part D: all the information and documents required by the contracting authority for the appraisal of tenders on the basis of the **Award Criteria** set out under point **15.1** of these specifications;

Part E: setting out **prices** in accordance with **point 12** of these specifications.

11. Price

1. All inclusive fixed prices **for Module 1** must be quoted for one year for CleanSeaNet Data Centre Maintenance, and shall be expressed based on services described in Appendix 13. Corrective maintenance and operational support may be renewed by EMSA on yearly basis, for the duration of the framework contract.
2. **For Module 2**, a fixed price per day for each of the following profiles of the contract shall be provided:
 - i. Project manager (pm);
 - ii. Software architect (sa);
 - iii. Senior and Junior application developer (sad and jad);
 - iv. Data base administrator (dba);
 - v. Release manager (rm);
 - vi. Test manager (tm);
 - vii. Problem and Incident manager.

- Prices must be quoted in Euro.
 - Prices must be fixed amounts, non-revisable and remain valid for the duration of the contract.
- For Module 2**, estimated travel and daily subsistence allowance expenses must be indicated separately. This estimate should be based on Articles I.3 and II.16 of the draft contract. This estimate will comprise all foreseen travels and will constitute the maximum amount of travel and daily subsistence allowance expenses to be paid for all tasks.

- Under Article 3 and 4 of the Protocol on the privileges and immunities of the European Union, EMSA is exempt from all duties, taxes and other charges, including VAT. This applies to EMSA pursuant to the Regulation 1406/2002/EC. These duties, taxes and other charges can therefore not enter into the calculation included in the bid. The amount of VAT must be shown separately.

12. Joint Offer

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 consortia) 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.

Each member of the consortium must provide the required evidence for the exclusion and selection criteria. The exclusion criteria will be assessed in relation to each economic operator individually. Concerning the selection criteria the evidence provided by each member of the consortium will be checked to ensure that the consortium as a whole fulfils the criteria.

If awarded, the contract will be signed by the person authorised by all members of the consortium. Tenders from consortiums of firms or groups of service providers, contractors or suppliers must specify the role, qualifications and experience of each member or group.

13. Information concerning the personal situation of the service provider and information and formalities necessary for the evaluation of the minimum economic, financial and technical capacity required

14.1 Legal position – means of proof required

When submitting their bid, tenderers are requested to complete and enclose the **Legal Entity Form** and requested accompanying documentation, available on the Procurement Section (Legal Entity Form) on the EMSA Website at the following address: www.emsa.europa.eu

14.2 Grounds for exclusion - Exclusion criteria

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

- 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 Union financial interests;
 - f) they have been the subject of the administrative penalty for being guilty of misrepresentation in supplying the information required by the contracting authority as a condition of participation in the procurement procedure or failing to supply an information, or being declared to be in serious breach of his obligation under contract covered by the budget.

14.3 Evidence to be provided by the tenderers

For this purpose the Declaration on Honour available on the Procurement Section on the EMSA Website (www.emsa.europa.eu) shall be completed and signed.

Please note that the tenderer to whom the contract is to be awarded shall provide additional proof evidencing eligibility.

For situations described in (a), (b) and (e), production of a recent extract from the judicial record is required 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. Where the tenderer is a legal person and the national legislation of the country in which the tenderer is established does not allow the provision of such documents for legal persons, the documents should be provided for natural persons, such as the company directors or any person with powers of representation, decision making or control in relation to the tenderer.

For the situation described in point (d) above, recent certificates or letters issued by the competent authorities of the State concerned are required. These documents must provide evidence covering all taxes and social security contributions for which the tenderer is liable, including for example, VAT, income tax (natural persons only), company tax (legal persons only) and social security contributions.

For any of the situations (a), (b), (d) or (e), where any document described in two paragraphs above is not 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.

If the tenderer is a legal person, information on the natural persons with power of representation, decision making or control over the legal person shall be provided only upon request by the contracting authority.

When the tenderer to be awarded the contract has already submitted relevant evidence to EMSA, it remains valid for 1 year from its date of submission. In such a case, the reference of the relevant project(s) should be mentioned and the Contractor is required to submit a statement of confirmation that their situation has not changed.

14.4 Economic and financial capacity – Selection criteria

Requirements:

- The tenderer must be in stable financial position and the economic and financial capacity to perform the contract

Evidence:

- Financial statements for the last three years for which accounts have been closed.
- Statement of overall turnover and turnover relating to the relevant services for the last three financial years.
- Tenderers are exempt from submitting the documentary evidence if such evidence has already been completed and sent to EMSA for the purpose of another procurement procedure and still complies with the requirements. In this case the tenderer should simply indicate on the cover letter the procurement procedure where the evidence has been provided.
- If, for some exceptional reason which EMSA considers justified, a tenderer is unable to provide one or other of the above documents, he may prove his economic and financial capacity by any other document which EMSA considers appropriate. In any case, EMSA must at least be notified of the exceptional reason and its justification in the tender. EMSA reserves the right to request any other document enabling it to verify the tenderer's economic and financial capacity.

14.5 Technical and professional capacity – Selection criteria

Requirements:

- a) The members of the proposed team by the tenderer as mentioned in chapter 11 above must have the following minimum required experience:
 - Project manager: 10 years of working experience, at least 7 years in the area related with this tender; the project manager shall speak and write excellent English;
 - Software architect: 7 years of working experience, at least 5 years in the area related with this tender;
 - Senior and Junior application developer, where the Senior application developer should have 5 years and the Junior application developer 3 years of working experience, at least 3 years for senior and 1 year for junior in the area related with this tender;
 - Data base administrator: 7 years of working experience;
 - Release manager: 5 years of working experience;
 - Test manager: 5 years of working experience, at least 3 years in the area related with this tender;
 - Problem and Incident manager: 5 years of working experience, at least 3 years in the area related to this tender;

Evidence:

- The tenderer must provide Curriculum Vitae of all members of the proposed team.
- The tenderer must provide the aforementioned information full-filling the template in Appendix 1 section "Quality of the Team".

- b) The tenderer shall provide documentary evidence of its expertise, and knowledge, in the following areas with a list of projects, of at least EUR 100.000 each, of comparable and relevant systems in which he has participated in the last five years. Projects areas:
- Information systems and products based on Web technologies: architecture, development, operation and maintenance;
 - Software tools: WebLogic Server, Tomacat, Liferay Portal, Oracle RAC Database, Geoserver, Deegree;
 - Software language: Java, PHP and JSP;
 - Geospatial Services: Web Map Service (WMS), Web Feature Service (WFS), Web Coverage Service (WCS), Catalogue Service Web (CSW), Web Processing Services (WPS);
 - Geospatial Metadata: OGC metadata and ISO metadata, in particular, but not limited to, ISO 19115, ISO 19119, ISO 19139 and Earth Observation metadata profile of Observation & Measurements;
 - Geospatial Dataset: OGC Geography Markup Language (GML), Keyhole Markup Language – (KML), Shapefiles, Network Common Data Form (NetCDF), Observation and Measurements (O&M), ebRIM application profile for Earth Observation Products;
 - Earth Observation: Earth Observation Products (eop.xsd), High-resolution optical products (opt.xsd), Products created with SAR sensors (sar.xsd);
 - Technical assessment of information systems based on Service Oriented Architecture;
 - Use of quality systems;

Evidence:

- The tenderer must provide the aforementioned information filling in Appendix 1 section “Project”.

14. Award criteria

Only the tenders meeting the requirements of the exclusion and selection criteria will be evaluated in terms of quality and price.

The contract will be awarded to the tenderer who submits the most economically advantageous bid (the one with highest score) based on the following quality criteria and their associated weightings:

1. **Quality criterion 1** ($W_1 = 30\%$), Quality of the Services: For the services requested in Appendix 13 of these tender specifications, the tenderer shall describe how it plans to assure the quality of his services. For this criterion the tenderer shall use Appendix 1 section “Document”.
2. **Quality criterion 2** ($W_2 = 20\%$), Quality of the Project Management. For the services requested in Appendix 13 of this tender, the tenderer shall describe how it plans to assure the quality of Project Management. For this criterion the tenderer shall use Appendix 1 section “Document”. The tenderer shall at least address the following points:

- a. A detailed description for the methodology to be used during the whole lifecycle of the framework contract (including further breakdown and description of the tasks).
- b. Description of the means, tools that the bidder shall use to conduct the activities, including procedures and tools to be used for unit test during tests.
- c. Provision of a proposal on the table of contents for the key deliverables (referring to the minimum deliverables and reports).
- d. Concrete reference to standards applicable for each type of task.

and based on the price criterion taking into account the following weighting:

3. **Price of the bid** ($W_{Price} = 50\%$), The price of the bid shall be calculated as the sum of the following two prices:
 - a. Module 1 – fixed price per year of the CSNDC’s corrective maintenance and operational support
 - b. Module 2 – the Price of the following standard scenario for services ($P_{Scenario}$) that shall be calculated by multiplying the price per person day for each profile by a “coefficient” reflecting the relative use of each profile for the tasks foreseen in this framework contract (for Module 2):

	Price offered / Day / Profile in the bid A	Person days for the price evaluation B	Total A x B
Project Manager	pm	15	
Software Architect	sa	15	
Senior Application developer	sad	75	
Junior Application Developer	jad	100	
Database Administrator	dba	150	
Total for scenario		435	$P_{Scenario}$ $=\sum(AxB)$

The price of the bid constitutes the sum of the prices for points 3a, and 3b as identified above.

For all bids evaluators will give marks between 0-10 (half points are possible) for each quality criterion.

The score is calculated as

$$S = SQ + SP$$

where:

The average quality for quality criterion i is

$$Q_i = \frac{1}{\text{number of evaluators}} * \sum_{\text{evaluator}} \text{mark of the evaluator for quality criterion } i$$

The overall weighted quality is

$$Q = \sum_i Q_i * W_i$$

The score for quality is

$$SQ = \frac{Q}{Q \text{ of the bid with highest } Q} * 100 * \sum_i W_i$$

The score for price is

$$SP = \sum_i \frac{\text{lowest Price}_i \text{ of all bids}}{\text{Price}_i} * 100 * W_{\text{Price}_i}$$

Only bid that has reached a minimum of 60 % for Q_1 , and minimum of 60 % for Q_2 will be taken into consideration when calculating the score the score S .

Only if the bid reaches a minimum of 60 % for the score S , it will be taken into consideration for awarding the contract.

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

- a) are subject to a conflict of interest
- 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.

16. False declarations

Without prejudice to the application of penalties laid down in the contract, tenderers and contractors who have been guilty of making false declarations concerning situations referred to in points 14 and 15 above or have been found to have seriously failed to meet their contractual obligations in an earlier procurement or grant shall be subject to administrative and financial penalties set out in Article 145 of Commission Delegated Regulation of 29.10.2012 on the rules of application of Regulation (EU) No 966/2012 of the European Parliament and of the Council on the financial rules applicable to the general budget of the Union.

17. Intellectual Property Right (IPR)

Please consult the contract for IPR related clauses.

If the results are not fully created for the purpose of the contract this should be clearly pointed out by the tenderer in the tender. Information should be provided about the scope of pre-existing rights, their source and when and how the rights to these rights have been or will be acquired.

In the tender all quotations or information originating from other sources and to which third parties may claim rights have to be clearly marked (source publication including date and place, creator, number, full title etc.) in a way allowing easy identification.

18. List of Appendices

1. Template for bidder.
2. Technical Design Document (TDD).
3. External Interface Control Document (EICD).
4. Operational and Maintenance Manual (OMM).
5. Incident Handling Procedures (IHP).
6. Installation Manual (IM).
7. System and Application Technical Landscape.
8. EMSA Project Delivery.
9. EMSA Working Procedures.
10. EMSA Access and Identify Management Guide.
11. Initial Quality Gate.
12. SafeSeaNet Ecosystem.
13. Corrective Maintenance and Operation Support Technical Specifications.

The following documents are public available to the bidders: 1, 7, 8, 9, 10, 11, and 13.

The following documents are available to bidders upon request: 2, 3, 4, 5, 6, and 12. Any requests for documentation must be made in writing and sent to the e-mail address specified in the invitation to tender.