ANNEX I – TENDER SPECIFICATIONS

Framework service contract for the provision of

IT and GIS consultancy services on implementation of Copernicus Reference Data Access (RDA) Component and on supporting EEA in other Copernicus related activities (2 lots)

Reference: **Open call for tenders EEA/MDI/14/005**

Closing date: **15.7.2014**

1. Introduction to EEA

The European Environment Agency (EEA) is a European Union public body governed by Regulation (EC) No 401/2009 of the European Parliament and of the Council of 23 April 2009[1]. The EEA role is to support the European Union in the development and implementation of environmental policy by providing relevant, reliable, targeted and timely information on the state of the environment and future prospects. The EEA also provides the necessary independent scientific knowledge and technical support to enable the Union and the member countries to take appropriate measures to protect and improve the environment as laid down in the Treaty and by successive Community action programmes on the environment and sustainable development. Currently, the EEA has 33 member countries (the Member States of the European Union, Iceland, Liechtenstein, Norway, Switzerland and Turkey).

The EEA is the hub of the European Environment Information and Observation Network (Eionet), a network of around 350 organisations across Europe, through which it collects and disseminates environment-related data and information, including European Topic Centres. The EEA and Eionet contribute to the European Shared Environmental Information System (SEIS), a distributed, integrated, web-enabled information system based on a network of public information providers sharing environmental data and information. It builds on existing e-infrastructure, systems and services in the Member States and EU institutions. The cooperation with the Eionet network, and the vision on SEIS are important assets for EEA to take up the role of coordinating and implementing an improved access to in situ data for the production and operation of Copernicus services, and more particularly to geospatial reference data, and as a step up towards the Copernicus service cross-cutting in situ coordination, as foreseen by the Copernicus regulation[2].

There are approximately 200 staff members working at the EEA. These staff members come from a wide range of national, professional and cultural backgrounds. Their functions at the EEA vary from environment-related research and data-analysis to administrative or managerial tasks.

Further information about the work of EEA can be obtained on its website:
http://www.eea.europa.eu.

[1] OJEU L 126 of 21.5.2009, p. 13.

[2] Regulation (EU) No 377/2014 of the European Parliament and of the Council of 3 April 2014 establishing the Copernicus Programme and repealing Regulation (EU) No 911/2010 (OJ L 122/44 of 24.4.2014).

2. Presentation of the tender

Tenders shall be submitted in accordance with the ***double envelopes system***:

The outer envelope or parcel should be sealed with adhesive tape and signed across the seal and carry the following information:

- The call for tenders reference No **EEA/MDI/14/005**

The contract title ***"IT and GIS consultancy services on implementation of Copernicus Reference Data Access (RDA) Component and on supporting EEA in other Copernicus related activities"***

- The name of the tenderer
- The specific lot number
- The indication ***"Tender – Not to be opened by the internal mail services"***
- The address for submission of tender (as specified in the letter of invitation to tender)
- The date of submission shall be legible on the outer envelope or parcel

The outer envelope or parcel must contain three inner envelopes, i.e. envelopes No 1, 2 and 3, corresponding to the following three sections: administrative section, technical offer and financial offer.

(a) Envelope No 1 – Administrative section shall include the following:

- The Tender submission form drawn up in accordance with the template in annex 1
- The declaration on exclusion criteria as required under section 10.1.2 drawn up in accordance with the template in annex 2
- The legal entity form as required under section 10.2.1 drawn up in accordance with the template in annex 3
- The financial identification form drawn up in accordance with the template in annex 4
- The evidence and documentation demonstrating the fulfilment of the selection criteria as required under sections 10.2.2 (economic and financial capacity) and 10.2.3 (technical and professional capacity)

(b) Envelope No 2 – Technical offer shall include the following:

The technical offer providing all information requested under sections 6, 7 and 10.3.1 including information relevant to subcontracting as requested under section 4.3.

(c) Envelope No 3 – Financial offer shall include the following:

The financial offer providing all information requested under sections 9 and 10.3.2, drawn up in accordance with the template in annex 5.

Tenders shall be drafted in one of the official languages of the European Union, **preferably in English** (supporting evidence does not need to be translated) and submitted **in triplicate** (one signed original unbound and two copies).

It is important that tenders be presented in the correct format and include all documents necessary to enable the evaluation committee to asses them. Failure to respect these requirements will constitute a formal error and may result in the rejection of the tender.

Tenderers shall observe precisely the indications in points 2, 3, 4 and 6 of the letter of invitation to tender to ensure their tender are admissible. Late delivery will lead to the non-admissibility of the tender and its rejection from the award procedure for this contract. Offers sent by e-mail or by fax will also be non-admissible and discarded. Envelopes found opened at the opening session will also lead to non-admissibility of the tender. Consequently, tenderers must ensure that their tenders are packed in such a way as to prevent any accidental opening during their mailing.

3. Confidentiality and protection of personal data

For the processing of this tendering procedure, the EEA observes the rules set in Regulation (EC) No 45/2001 on the protection of individuals with regard to the processing of personal data by Community institutions and bodies and on the free movement of such data (OJEU L 8 of 12.1.2001, p. 1).

For further detailed information please refer to the privacy statement available on the EEA external website at the following address: http://www.eea.europa.eu/about-us/tenders/privacy-statement.

4. Participation in the tendering procedure

Submission of a tender implies acceptance of the terms and conditions set out in the invitation to tender, in these tender specifications and in the draft framework contract attached to the latter (see annex 6) and, where appropriate, waiver of the tenderer's own general or specific terms and conditions. It is binding on the tenderer to whom the contract is awarded for the duration of the contract.

4.1. Eligibility

This call for tenders is open on equal terms to all natural and legal persons from one of the 33 EEA member countries and to all natural and legal persons established in a third country which has a special agreement with the European Union in the field of procurement on the conditions laid down in that agreement[3].

As proof of eligibility tenderers must indicate in the tender submission form (see annex 1) in which state they have their headquarters, registered office or residence, and provide the necessary supporting documents in accordance with their national law. If the tender is a natural person, he/she must provide a copy of identity card/passport or driving license and proof that he/she is covered by a social security scheme as a self-employed person.

4.2. Application

All eligible natural and legal persons (as per above) or groupings of such persons (consortia) may apply.

A consortium may be a permanent, legally established grouping or a grouping, which has been constituted informally for a specific tender procedure. If awarded the contract, the members of the consortium (i.e. the leader and all the other partners) will have an equal standing towards the EEA in executing the framework service contract and they will be jointly and severally liable to the EEA.

The participation of ineligible natural or legal person will result in the automatic exclusion of that person. In particular, if that ineligible person belongs to a consortium, the whole consortium will be excluded.

The EEA will not request consortia to have a given legal form in order to be allowed to submit a tender, but reserves the right to require a consortium to adopt a given legal form before the contract is signed if this change is necessary for proper performance of the contract. This can take the form of

[3] At this point in time, tenderers established in one of the following countries are eligible: EEA member countries, i.e. EU-28, Iceland, Liechtenstein, Norway, Switzerland and Turkey; and under the stabilisation and association agreements: FYROM, Albania, Montenegro and Serbia.

an entity with or without legal personality but offering sufficient protection to the EEA contractual interests (depending on the member countries concerned, this may be for instance, incorporation or partnership or a temporary association). Consortia must identify one of their members as coordinator who will interface with the EEA.

Each member of a consortium must fulfil the conditions for participation mentioned in this section and section 4.1 above and provide the required documents listed in these tender specifications under sections 10.1 and 10.2 below. Therefore, each member of a consortium shall specify his role, qualifications and experience.

4.3. Subcontracting

A contractor may subcontract part of the services.

Tenderers must state what part of the work, if any, they intend to subcontract, and to what extent (for instance % of the total contract value), specifying the names, addresses and legal status of the subcontractors. If subcontracting is **not** envisaged, tenderers shall clearly state so in the tender submission form (see annex 1).

Legal persons must provide a document containing a list of the professional qualifications of the subcontractors and statement of the means of confidentiality when subcontractors are used. If awarded the contract, the contractor may not choose subcontractors other than those mentioned in the bids unless he obtains the prior written authorisation of the EEA. The overall responsibility of the work remains with the contractor.

Tenderers shall acknowledge (see annex 1) that the EEA reserves the right to request them at a later stage to provide documentation in relation to exclusion and selection criteria for any proposed subcontractors (see sections 10.1 and 10.2 below).

If awarded the contract, the contractor must ensure that Article II.17 of the draft framework contract (see annex 6) can be applied to subcontractors. Once the contract has been signed, Article II.12 of the above-mentioned draft framework contract shall govern subcontracting.

5. Contractual terms

In drawing up their bid tenderers should bear in mind the provisions of the standard framework contract and standard specific contract attached to these tender specifications (annex 6).

6. Subject of contract

6.1. Context of the contract

Copernicus, previously known as GMES (Global Monitoring for Environment and Security), is the European Programme for the establishment of a European capacity for Earth Observation.

The use of the Copernicus services is an integrated part of EEA's strategy to improve environmental information. Copernicus also plays an important role in the implementation of the principles of the Shared Environmental Information System (SEIS), and has the potential to make effective use of existing infrastructures in accordance with the INSPIRE directive. In the global context, Copernicus is an integral part of the Global Earth Observation System of Systems (GEOSS).

EEA plays a key role in the operation of the Copernicus services, in particular in the technical coordination and implementation of the Pan-European and Local component of the Copernicus Land Monitoring Service, and of the Copernicus Reference Data Access (RDA) component. Under the Copernicus regulation[4] the Copernicus services cross-cutting in-situ coordination will be delegated to the EEA as part of the Copernicus programme in 2014-2020. In-situ data have been defined for the Copernicus programme as: "*all non-space-born data with a geographic dimension, including observation data from ground-, sea- or air-borne sensors as well as reference and ancillary data*

[4] See footnote No 2.

licensed or provided for use in Copernicus". Geospatial reference data are a special category of in-situ data for Copernicus services providing a geographic framework to which other required in-situ data are referenced and maintained. Reference data are required by Copernicus services for creation, verification and validation of information products and services derived from satellite images. The RDA component aims at improving the access to and fitness for purpose of essential reference data for Copernicus service production, as defined in the Copernicus annual work programmes, namely for the land monitoring and emergency management services. Broadening the scope from reference data to in situ data in general, and from land monitoring and emergency management to all Copernicus services marks the transition from GMES Initial Operations (see sections 6.3.1 & 6.3.2) to the Copernicus operational phase (see section 6.3.3).

6.2. Scope and purpose of the contract

The purpose of this call for tenders is to establish one or two framework service contracts with (an) economic operator(s) who can provide to EEA IT and GIS consultancy services for the implementation of RDA component and for supporting EEA in other Copernicus related activities specified in section 6.3 below.

6.3. Description of the services

The RDA component work described in this call for tenders fits a dual track approach to ensure service cross-cutting improved availability and access to a selected group of required reference data. A first and most important track consists of improving the access mechanisms to existing national and regional reference data by setting up an intermediate node at EEA, for use by Copernicus services. This node shall harvest national and regional datasets from the EEA39 member and cooperating countries, and make them available at a single point of access for the Copernicus services.

A second and complementary track consists of creating and improving pan-European reference data sets, which are primarily used for gap filling over those areas for which no national or regional reference data can be accessed in the short term (because they don't exist at the required scale or quality, or available only commercially), or in cases where homogeneous data specifications are required over the full geographic coverage.

Most of the reference data required by Copernicus services can be linked to INSPIRE spatial data themes from Annex I and II and are supported by INSPIRE data specifications. Over 20 reference datasets have been identified by Copernicus services as essential for their service production work.

As the implementation of INSPIRE progresses, the first track will gain in importance (INSPIRE will ensure timely and cost-effective access to the national and regional reference data required by Copernicus services), whereas the second track is deemed to fade out on the longer term.

6.3.1. Lot 1: Technical support for set-up and maintenance of the Copernicus Reference Data Access node

Reference data in EEA39 countries are owned by national and/or regional authorities and can be accessed in different formats through diverse interfaces (national or regional INSPIRE spatial data infrastructures, institutional portals and other sources). This creates additional complexity for Copernicus services in making use of the national and regional reference data. The EEA shall set-up a node providing for Copernicus services a single data access interface to the required up-to-date reference data in EEA39 countries that have established free of charge web services (either fully free and open or free of charge but with restricted access). Reference data are expected to become available through INSPIRE compliant web services, however, investigation done by the EEA GISC (Copernicus in-situ coordination) project in 2010-2013 showed that different levels of INSPIRE compliance exist in the national and regional web services. Therefore, at input side, it is important to ensure a sufficient level of technical flexibility in an attempt to get as many as possible national reference data addressed via the node, whilst keeping in mind cost-efficiency considerations. At

output side, web services shall be INSPIRE compliant, to the extent feasible in terms of matching Copernicus service requirements. Specific needs of Copernicus services shall be addressed in the design and implementation of the node, example being securing offline access to the required geospatial reference data for the Copernicus Emergency Management service in cases when respective national web services temporarily are not available.

It is expected that in the beginning this node will provide access to the pre-selected national and regional reference datasets linked to INSPIRE Annex I and II (addressing essential reference data needs of the Copernicus Land Monitoring and Emergency Management services), however the scope of the geospatial reference data accessible through the node operated by EEA will be extended over coming years as more data will become available free of charge for Copernicus services (as a result of both the progress in the implementation of INSPIRE, and EEA's in-situ coordination activities) and addressing as well the in situ data needs of other Copernicus services (marine, atmosphere, climate change and security), hence linking to INSPIRE Annex III as well.

The node shall consist of:

- a server side system, which:
    - with a single login will provide for Copernicus services access to all required geospatial reference data from all registered national, regional or European data providers (both where the data is available fully freely and openly and where the data is free of charge but the access is restricted);
    - will act as a node, at the input side accessing the respective national and regional data nodes (based on the search criteria), and at the output side providing web services directly accessible for the Copernicus services; the output side will provide INSPIRE compliant services, unless if Copernicus service requirements are such that different solutions need to be envisaged;
    - will ensure a minimum level of geospatial data model transformations, either on the fly or off line, to serve at the output side as harmonised as feasible data coverage to the Copernicus services (e.g. on the fly projection transformation to a common European projection, object definition translations…);
    - ensures a sufficient level of performance and availability to serve Copernicus services in a reliable manner; this may include intermediate storage of datasets prone to slow or unreliable connectivity;
- software for the administration and maintenance of the node;
- monitoring software aimed at ensuring 24/7 availability by automated alerting of any anomalies, to improve the node and for reporting purposes to the European Commission.

Annex 8 is providing a detailed description of the vision of this Copernicus Central Reference Data Access Node (CORDA) i.e. the architecture, the design approach and functionality illustrated by different use scenarios. The CORDA is considered as the mandatory starting point for the development of the access node. Nevertheless, as part of the methodological approach, the tenderer is free to point to potential improvements of the concept, which are feasible within the boundary conditions as set out in this specifications document.

What is <u>not</u> in the scope:

- client software to access the node or visualize the data. It is anticipated that service providers of the Copernicus services will use their day-to-day GIS software for data visualization, analysis and modification;
- client software for data providers. No software implementation will be needed at national, regional or European data providers.

Principles of modularity, reusability and scalability shall be followed in the design and implementation of the node. The node shall have service oriented architecture (SOA).

Due to the nature of the system being highly dependent on the advancements of the web services established in the countries, the chosen implementation approach will be a step-by-step implementation of the modules.

6.3.2. Lot 2: Technical support for completion and improvement of Pan-European hydrographic and elevation datasets (EU-Hydro and EU-DEM) for use by Copernicus services

EU-Hydro and EU-DEM are European reference datasets created in the scope of the GMES Preparatory Action on RDA 2009. The purpose of EU-Hydro and EU-DEM upgrade is enhancement in quality and enriching of the datasets with new features, within the main objective of providing these reference datasets fit for use by the Copernicus services.

EU-Hydro – The main outcome of the EU-Hydro upgrade will be a fully consistent database on surface hydrography, containing a photo-interpreted river network and surface water bodies, completed with missing upstream river segments available from the EU-Hydro modelled drainage part of the dataset as derived from EU-DEM. EU-Hydro will be linked to national identifiers of water bodies, complemented with a coastline consistent with the EU-DEM. The database shall fulfil all essential characteristics of a sound GIS database, fit to serve as a European reference dataset in terms of completeness, consistency, coherence, semantics, topology and metadata.

The following main blocks are foreseen in the EU-Hydro upgrade:

1. Improvement of photo-interpreted geometries:
    a. Improvement of the coastline; this shall be done whilst maintaining consistency with the EU-DEM dataset;
    b. Adjustment and topologically correct linkage of the EU-Hydro hydrographic database to the changed coastline.
2. Corrections of geometry and network topology errors still present in the beta version of the database:
    a. Correction of flow lines through lakes;
    b. Completion of the lower hierarchical levels (upstream parts) of the network over Turkey;
    c. Completion with missing river segments and/or canals and lakes; the Copernicus land High Resolution Layer on small water bodies is, amongst other, one ancillary data source that can be used for identifying missing lakes larger than the required MMU of 1ha;
    d. Removing superfluous pseudo-nodes or splitting segments on more relevant places (junctions, crossings etc…);
    e. Correction of geographical displacements, removal of dangles and self-intersections etc…
    f. Adding missing polygons for river segments wider than 25 m.
3. Correction of Strahler codes in certain upstream parts, i.e. when the river network does not fully extend to the source, and these missing upstream parts would have wrongly affected Strahler coding;
4. Maintaining consistency between EU-DEM and EU-Hydro - transfer of adjustments into the Digital Elevation Model (DEM) and maintaining consistency between river network and corresponding catchment areas;
5. Completing attributes:
    a. Integration of national codes of water bodies;
    b. Revision of river network attributes and classification;
    c. Integration of dams.
6. Ensuring full topological consistency, including attributes of next-Down-ID / next-up-ID, including height values and/or flow directions to allow the EU-Hydro dataset to be used for drainage modelling.
7. Extending the data model:
    a. Building the link between drainage and river network;
    b. Integration of the results (hydrographic and drainage database) into a single database.
8. Regrouping the dataset in coherent and consistent water catchments.

The Beta version of EU-Hydro dataset is available internally at EEA.

EEA has initiated consultations with its member and cooperating countries aiming at completing the database of national codes of surface water bodies for their integration into EU-Hydro. The process is on-going and the results are expected by September 2014. It is not excluded that certain corrections might be required in the identified tasks of the EU-Hydro upgrade.

EU-DEM – The EU-DEM upgrade shall maintain its characteristics as European reference dataset. The result of the upgrade shall ensure full consistency and coherence with the EU-Hydro database, so as to enable various types of spatial modelling combining both datasets in a consistent way, e.g. run-off modelling.

As a minimum, the following tasks are foreseen in the EU-DEM upgrade:

1. Correcting potential remnant errors with the geographic positioning of some islands, following erroneous projection parameters;
2. Ensuring a pragmatic solution for consistency of the coastline with the coastline from the EU-Hydro;
3. Correcting the burning of water bodies into the EU-DEM whenever changes are made to the geometry of the water bodies in the EU-Hydro;
4. Correcting the EU-DEM for zones of outlier height values as compared with IceSat reference points. However, only IceSat points shall be chosen in sufficiently flat zones, and unobstructed by nearby phenomena that can distort the signal as measured by IceSat;
5. Removal of remnant artefacts.

EU-DEM is available for download at the EEA Copernicus Land Monitoring portal.

The scope of the EU-DEM upgrade will be shaped based on user feedback (gathered by the EEA both from specific use cases and through technical workshops, queries etc.) and consultations with the countries. Moreover, independent statistical validation of the EU-DEM dataset is being performed, for which the results are expected by end June 2014. Therefore the description of the tasks to be fulfilled by the contractor in EU-DEM upgrade will be further specified in the specific contracts.

6.3.3. Future provision of IT and GIS consultancy services ancillary to the Reference Data Access component and on supporting EEA in other Copernicus related activities

Under the new Copernicus programme in 2014-2020 the EEA will be delegated tasks related to in-situ data when coordination across Copernicus services will be required. Along with broadening the scope from reference data to in situ data in general, comes a broadening of scope from land monitoring and emergency management services to the full Copernicus services portfolio.

Therefore, the framework contract(s) resulting from the two lots specified in 6.3.1 and 6.3.2 also aim at the future provision of IT and GIS consultancy services on supporting the EEA in the Copernicus related activities from 2015 onwards. The future contractor(s) is/are expected to be able to provide upon request consultancy services including:

- Implementation of INSPIRE compliant web services for the operational provision of common in-situ data (thematic, reference, Near Real Time (NRT)) required for multiple Copernicus services (lot 1);
- Geospatial data production, management, correction and maintenance tasks (lot 2);
- Geospatial data model transformations to INSPIRE compliant data models (lot 2);
- INSPIRE compliant metadata provision for geospatial data and services (lot 2).

6.4. Submission of tenders

Tenderers may place an offer for one or both lots based on their expertise and experience. In case tenderers submit offers for both lots, they are requested to submit their bids separately for each individual lot, specifying the number and subject of the lot and comprising a section giving the technical offer (envelope No 2) and a section giving the financial offer (envelope No 3) for each

individual lot. The administrative section (envelope No 1) providing information as to the legal, economic and financial, professional and technical capacity of the tenderer and including annexes 1 to 4 to these tender specifications need though to be submitted only once. In this respect and owing to the variety of services required, tenderer may choose presenting the evidence related to their technical and professional capacity in one or more sub-sections for all lots for which they want to submit an offer.

Tenders will be evaluated separately for each lot, as to their merits (see section 10.3 below). A framework contract will be awarded for each lot (maximum 1 per lot). If both lots are awarded to the same tenderer, a single framework contract covering those lots will be signed.

7. General obligations of the tenderer/mandatory requirements

7.1. Deliverables and schedules

The table below describes the deliverables to be provided. Timing is indicating latest possible delivery dates as referred to the start of the contract. Depending on the organisation of the workflow, the tenderer is entitled to propose upfront shifts in the project management plan (see section 7.2).

Nr.	Deliverable	Estimated timing (T0 = signature of relevant specific agreement)
1	Draft project management plan	T0 + 2 weeks
2	Final project management plan	T0 + 1 month
3	Provision of the consolidated conceptual design of the access node	T0 + 2 months
4	First vector dataset of the improved EU-Hydro database covering 1 major river basin, representative for the variability from mountainous to plain landscapes, with the associated INSPIRE compliant metadata, and providing all requested improvements.	T0 + 2 months
5	First raster dataset of the improved EU-DEM surface model, covering the corresponding basin of deliverable nr. 4, and providing all requested improvements.	T0 + 2 months
6	Intermediate deliverables on the access node: 1. single log in system of the EEA RDA service node; 2. business modules of the EEA RDA service node	T0 + 5 months
7	Intermediate (X) vector datasets of the improved EU-Hydro database covering approximately half of the total required coverage of river basins, with the associated INSPIRE compliant metadata.	T0 + 7 months
8	Intermediate (X) raster dataset of the improved EU-DEM surface model, covering approximately half of the total required coverage of the corresponding catchment areas of deliverable nr. 7, and providing all requested improvements.	T0 + 7 months
9	Remaining deliverables on the access node:	T0 + 10 months

	1. off-line cloud storage system; 2. administration and monitoring modules	
10	Deployment and population of the EEA RDA service node	T0 + 12 months
11	Remaining (Y) vector datasets of the improved EU-Hydro datasets covering approximately half of the total required coverage of river basins, with the associated INSPIRE compliant metadata.	T0 + 12 months
12	Remaining (Y) raster dataset of the improved EU-DEM surface model, covering approximately half of the total required coverage of the corresponding catchment areas of deliverable nr. 11, and providing all requested improvements.	T0 + 12 months
13	Draft final report comprising: 1. Full documentation of the development of the RD access node, including source code and user manual; 2. full documentation of all processing steps performed on the reference datasets, including the results of an internal geo-statistical quality assessment.	T0 + 11 months
14	Final report	T0 +12 months

The detailed description, incl. content description, intermediate and final deliverables of each task, internal quality assessment procedures, where applicable, and agreed schedules shall be the subject of the respective specific agreements to be established under the framework contract. The estimated number of specific agreements per year for each lot is expected to be 2 or 3, with the duration of each specific agreement varying between 3 to 6 months. Types of deliverables depend on the specific tasks and may include technical reports, geospatial datasets of a specified format, scripts, metadata, etc.

7.2. Project management

The project management plan shall be the controlling document for the contract, permitting to define, organize and monitor activities. The project management plan shall provide a feasible and effective breakdown of the activities and shall include the following items:

- Description of the agreed methodology;
- Staff planning and proposed key personnel relevant for the tasks at stake;
- Tasks breakdown and content with deliverables and delivery milestones (production plan);
- Facilities and resources;
- QA/QC procedures, respectively on the CCRD access node development and the reference dataset upgrade activities;
- Risk analysis and mitigation measures.

7.3. Meetings

For each specific agreement there will be at least two physical meetings organised at EEA premises – a kick-off meeting to discuss the details of tasks and deliverables and the meeting where the final deliverables of the respective specific contract are presented, and 2 to 3 video- or phone conferences to discuss progress or technical issues. In addition to that, participation to 2 to 3 Copernicus ad-hoc

meetings organised by the EEA or the European Commission (e.g. coordination meeting with other Copernicus services, consultations with the national data providers etc.) may be required.

7.4. Place of delivery/performance of the services

The services shall be performed at the contractor's premises (extra-muros) or at the EEA's premises in Copenhagen, Kongens Nytorv No 6, 1050 K (intra-muros), depending on the requirements of the specific contract. Travel to other locations, may be required on an ad-hoc basis in which case travel and subsistence costs will be paid according to EEA standard rules and rates (see annex 7). The number of these travels is expected to be very limited.

8. Type and volume of contract

The successful tenderer(s) will be awarded one or two framework contract(s) for an initial period of 24 months, starting from the date of signature, with the possibility of two renewals for 12 months (each). The services will be implemented through specific contracts depending on the EEA's demand. Based on the EEA's current level of activities and anticipated future demand the total value of the contracts is estimated at maximum EUR 4.000.000 over a maximum period of 48 months for both lots, covering all services and travel specified above.

The estimated budget is split between lots over an initial period of 24 months as follows:

EUR 2.000.000	
Max. EUR 1.250.000	Lot 1
Max. EUR 750.000	Lot 2

A total budget of maximum EUR 2.000.000 is foreseen for possible renewals of the framework contract(s), depending on EEA's demand, to cover the tasks specified in section 6.3.3 above.

The estimated budget for possible renewals of the framework contract(s) is split between lots over period of 24 months as follows:

EUR 2.000.000	
Max. EUR 1.000.000	Lot 1
Max. EUR 1.000.000	Lot 2

9. Price

Tenderers are required to quote prices for the services to be provided as follows:

- Prices must be quoted in compliance with the requirements specified in section 10.3.2 below.
- Prices quoted must be **all-inclusive** (i.e. inclusive of all costs involved in the performance of the contract (e.g. administrative and travel costs, with the exception specified in section 7.4 above in regard to travel to destination other than Copenhagen)) and expressed in **euro**, including for tenderers established in countries that are not part of the Eurozone. For tenderers established in countries that do not belong to the Eurozone, the price quoted may not be revised in line with exchange rate movements. It is for the tenderers to select an exchange rate and assume the risks or the benefits deriving from any variation.
- Prices must be quoted as follows:
    - For the tasks under section 6.3.1 and 6.3.2, as well as the additional tasks specified in section 6.3.3:
        - Daily rate for senior consultants working intra-muros at the EEA for an extended period of time (daily rate = 8 hours);
        - Daily rate for senior consultants working extra-muros at the contractor's premises (or elsewhere) (daily rate = 8 hours);

- Daily rate for junior consultants working intra-muros at the EEA for an extended period of time (daily rate = 8 hours);
- Daily rate for junior consultants working extra-muros at the contractor's premises (or elsewhere) (daily rate = 8 hours).

- No additional expenses incurred in the performance of the services will be reimbursed separately by EEA.
- The price quoted must be fixed and not subject to revision during the first year of duration of the contract.

  From the beginning of the second year of duration of the contract, 80% of the prices may be revised upwards or downwards each year, where such revision is requested by one of the contracting parties by registered letter no later than 3 (three) months before the anniversary of the date on which it was signed.

  The EEA shall purchase on the basis of the price in force on the date on which specific contracts are signed. Such prices shall not be subject to revision.

  The revision shall be determined by the trend in the harmonised indices of consumer price (HICP) published by the European Commission on Eurostat web page at http://epp.eurostat.ec.europa.eu/portal/statistics/search_database (Theme 2 – Economy and Finance; Price; HICP – Harmonised Indices of Consumer Prices; HMIDX – Monthly data (index); GEO – Euro area (EA11-2000, EA12-2006, EA13-2007, EA15-2008, EA-16-2010, EA17); COICOP – cp00).

  Revision shall be calculated in accordance with the following formula:

  Pr = Po x (0,2 + (0,8 x Ir/Io))

  Where:

  Pr = revised price;

  Po = price in the original tender;

  Io = index for the month in which the validity of the tender expires;

  Ir = index for the month corresponding to the date of receipt of the letter requesting a revision of prices.

Under Articles 3 and 4 of the Protocol on the Privileges and Immunities of the European Communities and the Headquarters Agreement between the Agency and the Government of Denmark of 17 August 1995, the Agency is exempt from all charges, taxes and dues, including value added tax; such charges may not therefore be included in the calculation of the price quoted; the VAT amount must be indicated separately.

The costs incurred in preparing and submitting tenders are borne by the tenderers and cannot be reimbursed.

10. Criteria

10.1. Exclusion criteria

10.1.1. Exclusion from participation and award in the procurement procedure

To be eligible to participate in this contract award procedure, tenderers must not be in any of the exclusion situations referred to in Articles 106 and 107 of the financial rules applicable to the general budget of the European Union[5].

[5] Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council of 25.10.2012, OJEU L 298/1 of 26.10.2012.

10.1.2. Evidence to be provided by the tenderers

When submitting their bids, each tenderer (including any subcontractor or any member of a consortium) must provide a declaration on their honour in accordance with the form attached as annex 2, duly signed and dated, stating that they are not in any of the situations mentioned under section10.1.1 above.

The tenderer to whom the contract is to be awarded will be required, prior to the signature of the contract, to provide the evidence specified in the penultimate paragraph of the declaration of honour mentioned above (see annex 2).

10.2. Selection criteria

10.2.1. Legal capacity

Any tenderer is required to prove that he is authorised to perform the contract under national law, as evidenced by inclusion in a trade or professional register, or a sworn declaration or certificate, membership of a specific organisation, express authorisation, or entry in the VAT register.

To that effect, each service provider (including any subcontractor or any member of a consortium) is required to submit a legal entity form (see annex 3) duly filled out and signed, accompanied by a copy of inscription in trade register and/or a copy of inscription in VAT register, where applicable. However the subcontractor(s) shall not be required to fill out or provide those documents when the services provided represent less than 20 % of the contract.

10.2.2. Economic and financial capacity

Evidence of economic and financial capacity shall be furnished by one **(or more)** of the following documents:

- Appropriate statements from banks or evidence of professional risk indemnity insurance; OR
- The presentation of balance sheets or extracts from balance sheets for at least the last 2 (two) years for which account have been closed, where publication of the balance sheet is required under the company law of the country in which the economic operator is established; OR
- A statement of overall turnover and turnover concerning the services covered by the contract during the last 2 (two) financial years.

If, for some exceptional reason, which the EEA considers justified, a tenderer is unable to provide the references requested above, he may prove his economic and financial capacity by any other means which the EEA considers appropriate.

An economic operator may, where appropriate and for a particular contract, rely on the capacities of other entities, regardless of the legal nature of the links, which it has with them. It must in that case prove to the EEA that it will have at its disposal the resources necessary for performance of the contract, for example by producing an undertaking on the part of those entities to place those resources at its disposal.

10.2.3. Technical and professional capacity

Tenderers should show their degree of technical and professional capacity to carry out the requested tasks by providing information on the criteria described below. If several service providers or subcontractors are involved in the tender, the selection criteria for the technical and professional capacity will be assessed in relation to the combined capacities of the service providers and subcontractors, as a whole, to the extent that service providers or subcontractors put their resources at the disposal of the tenderer for performance of the contract.

Tenderers shall provide the following documentation:

- ***Human resources:***

Tenderers shall provide the following documents:

(i) CVs detailing the educational and professional qualifications of the firm's managerial staff as well as those of the staff designated to provide the services indicating the required professional experience as follows:

- Minimum 2 (two) CVs detailing the educational and professional qualifications of the firm's managerial staff (documenting a minimum of 5 (five) years' relevant experience);
- Minimum 3 (three) CVs of senior consultants who will be responsible for providing the services (documenting a minimum of overall 5 (five) years' relevant professional experience);
- Minimum 3 (three) CVs of junior consultants who will be responsible for providing the services (documenting a minimum of overall 2 (two) years' relevant professional experience);
- CVs of additional 3 (three) consultants who can potentially take over responsibility for providing the services in case of busy periods;
- Minimum 3 CVs of relevant supporting specialists who will not be working full time on the contract.

(ii) An overview in a cross table of all staff responsible for providing the services giving the total amount of months worked in the areas specified below:

Lot 1: Technical support for set-up and maintenance of the Copernicus reference data access node

Consultant/Experience	Name (as in CV) + months of experience in the specific topic	…	Name (as in CV) + months of experience in the specific topic
Proven minimum of 5 years of experience per senior expert, 2 years per junior expert responsible for providing the required services in developing with web service protocols such as WMS, WMS-INSPIRE, WFS,WFS-INSPIRE, WMS-T (or other OGC/INSPIRE protocols) including addressing issues related to their weaknesses in terms of capabilities on filtering, projection, identified and intended purposes of the named protocols, and including the use of transformation tools and on the fly geo-processing such as re-projection of WMS services.			
Proven minimum of 5 years of experience per senior expert, 2 years per junior expert responsible for providing the required services			

in developing in Java, .Net or PHP (one or more of the listed platforms)			
Proven minimum of 5 years of experience per senior expert, 2 years per junior expert responsible for providing the required services in the ESRI rest API for map services and in depth knowledge of ArcGIS online and its related rest API			
Proven minimum of 5 years of experience per senior expert, 2 years per junior expert responsible for providing the required services in using web protocol (http/https) to the extent of developing proxy services, including web based development using Javascript and HTML5			
Proven minimum of 3 years of experience per senior expert, 1 year per junior expert responsible for providing the required services in the development of cloud SaaS services (SaaS = Software as a Service) in Windows Azure			
Proven minimum of 3 years of experience per senior expert, 1 year per junior expert responsible for providing the required services in developing and optimising relational databases			
Proven experience (for managerial staff, senior and junior consultants) in writing technical reports/documentation in English language	+/-/NA		+/-/NA

Lot 2: Technical support for creation and upgrade of Pan-European hydrographic and elevation datasets (EU-Hydro and EU-DEM) for use by Copernicus services

Consultant/Experience	Name (as in CV) + months of experience in the specific topic	…	Name (as in CV) + months of experience in the specific topic
Proven minimum of 5 years of experience per senior expert, 2 years per junior expert responsible for providing the required services in reference data production for hydrography, including building hydrologic drainage models, derivation of geomorphological and other parameters from DEMs and generalisation of hydrographic networks			
Proven minimum of 4 years of experience per senior expert, 2 years per junior expert responsible for providing the required services in			

GIS for building complex ER data models in databases, taking stock on INSPIRE data specifications on hydrography, unique object identifier specifications and metadata specifications and other international standards such as ISO, OSGEO			
Proven minimum of 4 years of experience per senior expert, 2 years per junior expert responsible for providing the required services in linear referencing techniques, in particular dynamic segmentation			
Proven minimum of 4 years of experience per senior expert, 2 years per junior expert responsible for providing the required services in image processing for the classification of water objects from multispectral satellite imagery			
Proven minimum of 4 years of experience per senior expert, 2 years per junior expert responsible for providing the required services in processing and quality assessment of DEMs and DSMs, including assimilation and fusion of various sources and resolutions			
Proven experience (for managerial staff, senior and junior consultants) in writing technical reports/documentation in English language	+/-		+/-

- ***Past contracts:***

Tenderers shall provide details of major contracts awarded to them relevant to the services required by the EEA, indicating the value, dates, brief description of the services provided and recipients of the services (public or private), under the following two categories: (1) contracts currently undertaken; and (2) contracts that have been undertaken over the last 3 (three) years;

- **Quality control*:***

Tenderers shall provide details of any quality assurance accreditation that they hold. If no accreditation held, tenderers shall provide an outline of any quality assurance policy specifying the status of implementation (e.g. measures employed to ensure the quality of services such as web services, delivered products, derived data and source code), and details of any quality assurance accreditations for which they have applied. In the event of a joint offer submitted by a consortium, each member of the consortium shall provide the requested description.

- ***Environmental policy:***

Tenderers shall provide a description of their environmental policy specifying the status of implementation. In the event of a joint offer submitted by a consortium, each member of the consortium shall provide the requested description.

10.3. Award criteria

The assessment method that will be used to determine the choice of the tender will be based on the criteria given below, on the basis of the economically most advantageous tender in terms of:

- The quality of the tender (Technical merit – TM)
- The financial value of the tender (Price –P)

10.3.1. Technical merit (TM) (max. 70, min. 45 points)

Tenders will be evaluated following the award criteria and weights outlined below, producing a total potential score of 70 points.

Tenderers shall elaborate on all criteria referred to below in order to score as many points as possible. The mere repetition of mandatory requirements set out in these tender specifications, without going into details or without giving any added value will only result in a low score. If essential elements of these tender specifications are not expressly addressed in the tender, the EEA may decide to give a zero mark for the relevant quality criterion. It is important that the technical offer is presented in a simple and clear structure, following the numbering and the headings of the award criteria outlined below to enable the evaluation committee to assess them.

Lot 1: Technical support for set-up and maintenance of the Copernicus reference data access node and other Copernicus related infrastructure and software developments at the EEA

No	Award criteria	Maximum points (70)	Minimum points (45)
1.1	Proposed methodological approach to build the Copernicus Central Reference Data Access Node based on the vision as described in Annex 8, v.1.0. (max. 10 A4 pages).	35	23
1.2	Proposed approach for software updates with maximum safety and minimum downtime in the production environment where a three month cycle of production deployment is required.	10	7
1.3	Proposed QA/QC methodology. Tenderers shall provide a description of the way the quality of the work will be guaranteed, including approach to documentation of the source code, installation procedures, user documentation, backup documentation, measuring the quality of the developed software product over time etc.	15	10
1.4	Project management structure including approach to risk management, reporting and communication. Tenderers shall describe as well how agile their approach will be in carrying out the required services and tasks. This includes responsiveness to EEA requests, flexibility to cope with unforeseeable technical challenges, debugging and updates, etc.	10	5

Lot 2: Technical support for creation and upgrade of Pan-European hydrographic and elevation datasets (EU-Hydro and EU-DEM) for use by operational Copernicus services

No	Award criteria	Maximum points (**70**)	Minimum points (**45**)
2.1	Proposed methodological approach for: - upgrading the EU-Hydro database taking into account the known shortcomings and requested improvements; - upgrade the EU-DEM dataset taking into account the requirement of coherence and consistency with the EU-hydro database, as well as the potential for improvement of the dataset. (max. 10 pages description)	45	30
2.2	Proposed QA/QC methodology. Tenderers shall provide a description of the way the quality of the work will be guaranteed, including approach to documentation of data processing steps and methods applied, to measuring the quality of the developed data product over time.	15	10
2.3	Project management structure including approach to risk management, reporting and communication. Tenderers shall describe as well how agile their approach will be in carrying out the required services and tasks. This includes responsiveness to EEA requests, flexibility to cope with unforeseeable technical challenges, debugging and updates, etc.	10	5

Only tenders which obtain the indicated minimum number of points, both for each award criterion and in total, will be considered for the next stage, which involves determining the financial value of the tender (price index) and for the final assessment.

10.3.2. Price (P) (max. 30 points)

Tenderers are requested to submit a financial offer, giving the **all-inclusive** (i.e. include all relevant costs and all expenditure (e.g. management and administrative costs, travel costs for consultants working intra-muros at the EEA, etc…)) for the services outlined below.

For that purpose, tenderers shall complete the price quotation attached as annex 5 to these tender specifications. Tenderers shall bear in mind that all fields are compulsory and non-compliance will lead to exclusion of the tender from the award process.

Price	Services	Price (EUR)	Weighting factor
P_1	Senior consultants working intra-muros at the EEA for an extended period of time. (Daily rate = 8 hours)		30%
P_2	Senior consultants working extra-muros at the company's premises (or elsewhere) (Daily rate = 8 hours)		35%

Price	Services	Price (EUR)	Weighting factor
P_3	Junior consultants working intra-muros at the EEA for an extended period of time (Daily rate = 8 hours)		15%
P_4	Junior consultants working extra-muros at the company's premises (or elsewhere) (Daily rate = 8 hours)		20%

For each category above, tenders meeting all mandatory requirements including the minima for technical merit will score points in function of the following formula:

$Ps = (Ps_{min} / Ps_0) \times 30 \times$ weighting factor, where

Ps = Price Score for price of service,

Ps_{min} = the lowest price offered among the tenders received,

Ps_0 = the price of the tender being considered,

30 = the maximum number of points that can be awarded under this award criterion.

The price score for the provision of consultancy services (P) is the sum of the four Ps.

10.3.3. Final assessment

A framework contract will be awarded to the tenderer whose tender achieves the highest total score for technical merit and price (TM + P). Should tenders obtain the same final score and tie for first place, the winning tender will be decided on the basis of the highest score achieved for price.

11. Performance

Competence in both selection and award criteria must be maintained throughout the framework contract. Should the contractor fail to do so during the validity of the framework contract, the EEA reserve the right to refuse any consultant if performance is not satisfactory and/or to choose another vender from the tenders.

12. Environmental Considerations

The EEA runs a certified environmental management system (EMAS) and aims to minimise the environmental impact of all its activities, including those carried out under contract. The future contractor will, therefore, be requested to consider the EEA environmental management guidelines in the implementation of the contract, in particular, those relating to business travel, electronic means of communication, paper and energy consumption. Further information on the EMAS system can be found on the EEA homepage:

http://www.eea.europa.eu/documents/emas.

Moreover, it is strongly recommended that tenders are submitted in an environmentally friendly way, e.g., by choosing a simple and clear structure (list of contents and consecutive page numbering), double-sided printing, limiting attachments to what is required in the technical specifications (no additional material) and avoiding plastic folders or binders.

13. Timetable

The timetable for this call for tenders and signature of the resulting contract is as follows:

	Date	Comments
Call for tenders launch date	21.5.2014	Dispatch of the contract notice to the Office of Publication
Deadline for requests for clarifications	8.7.2014	
Last date on which clarifications are issued by EEA	10.7.2014	
Time limit for submission of tenders	15.7.2014	At 16:00 in case of hand delivery or 23:59 in case of mail delivery
Opening session	22.7.2014	At 10:00 local time in the EEA premises
Evaluation of tenders	From 23.7.2014 to 6.8.2014	Estimated
Award decision and notification of evaluation results	8.8.2014	Estimated
Contract signature	25.8.2014	Estimated
Implementation of contract		Immediately after contract signature

14. Annexes

Annex 1: Tender submission form

Annex 2: Declaration on exclusion criteria

Annex 3: Legal entity form

Annex 4: Financial identification form

Annex 5: Price quotation

Annex 6: Draft framework service contract and draft specific contract

Annex 7: Rules for the reimbursement of travel expenses

Annex 8: Copernicus Central Reference Data Access Node (CORDA), v1.0