

## **Tender specifications**

### **Framework service contract for support to the implementation of water systems accounting (resource and quality)**

#### **Open call for tenders No. EEA/BSS/08/002**

#### **1. Title of contract**

Support to the implementation of water systems accounting (resource and quality) at the EEA.

#### **2. Purpose and context of the contract**

The role of the European Environment Agency (EEA) is to provide scientific knowledge for policy making, primarily at the European level. The words “European level” designate both the European area and the building-up of data so that all relevant data is processed to provide information suitable for the European citizens and policy-makers alike.

This requires combination and aggregation of different data from local to regional level so that the final information is statistically representative, thematically consistent and politically relevant, hence including also socio-economic aspects. To meet this objective, in close cooperation with Eurostat, the Joint Research Centre (JRC), and the European Commission (DG ENV), the EEA is developing a European data infrastructure. This data infrastructure is essential for guaranteeing comparability of the data which will form the basis of European policies, at the same time as meeting short deadlines created by the political agenda.

Environmental accounting is one of the key tools for assessing environmental issues and their relation to the economy, and was claimed to be the “*best option for integrating social and environmental considerations into EU decision making in the long term*” at the “beyond GDP” conference (Brussels, 19 November 2007<sup>1</sup>). A key advantage of the accounting framework is that it offers a platform for better integrating heterogeneous information, qualifying it and, to some extent, paving the way for accurately quantified scenario analysis.

The EEA is planning to use the environmental accounting framework to enhance its future assessments of hydrosystems as part of an integrated ecosystem and ecosystem services-based approach. External support is required to insert the hydrosystems accounts into the EEA spatial platform (see sections below), carry out the pilot and prototype productions (quantity and quality), and contribute to capacity building on these topics.

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<sup>1</sup> ENDS *Europe* DAILY 2432, 20/11/07

The incorporation into the platform is a key point to streamline accounting and assessment.

The EEA has produced land cover accounts for Europe for 1990-2000, which will be updated for 2006. They form the infrastructure on which full ecosystem accounts will be developed by incorporating biological, water-related, socio-economic, and other data. The hydrosystems accounting encompasses the water resource accounts (quantity) and river quality accounting, and preparation of other water system-related assessments.

Water system accounts *stricto sensu* form part of the UN SEEA2003 (Integrated System of Environmental and Economic Accounting). The UNSD, with the support of the “London Group on Environmental Accounting”, has issued the “System of Environmental-Economic Accounting for Water” (SEEAW). This paper is a manual for implementing the SEEAW by modules: physical supply, assets, quality, valuation, hybrid (economy + physical), etc. The SEEAW was endorsed in 2006 as an interim statistical standard. However, the specific issues dealt with in chapters 7 and 8 of the SEEAW are considered experimental. The target of the EEA is therefore *i)* to implement SEEAW respecting the UNSD recommendations, and *ii)* to assess which improvements should be inserted in the aforesaid chapters so that they might become fully part of the statistical standard.

There are few examples of implementation of accounts on large areas and suitable time spans. There are few, if any, examples of systematic production of accounts at the suitable space and time scales to support the relevant assessment of water resources as part of hydrosystems accounting.

A revision of the SEEA2003 handbook, foreseen for 2010, creates an opportunity of broadening the scope of land and ecosystem accounts to provide a more complete coverage of ecosystem services and ecosystem integrity. Within this UN framework, the EEA has been asked to participate in related activities under the auspices of the London Group on Environmental Accounting

This offers an opportunity for providing a practical example of implementation providing the relevant message to policy-makers. The water-side approach to economic-environmental accounting provides an opportunity to define new aggregates (such as the Inclusive Domestic Product and the Full Cost of Goods and Services) connected to the conventional GDP, and measure sustainability gaps. This might serve as a contribution from the EEA to the ongoing European debate on the coverage of GDP, which was addressed during the European Commission event ‘Beyond GDP’ in November 2007.

Providing a sound political message requires ensuring comparability with existing economic and environmental accounts and considering whether different existing productions can be compiled at NUTs levels, as well as considering the fact that water accounts are highly dependant on the watershed delineations on the one hand and on the pseudo-watershed delineations resulting from the implementation of the water framework directive on the other.

The EEA is also cooperating with DG Environment, Eurostat and JRC on the implementation of water accounts; the role of the EEA is understood as assembling spatial information at the catchment level (resources run-off, abstractions, etc.) and producing hydrological balances.

Other current EEA activities on water aim at connecting, under the auspices of WISE, the formal reporting under the Water Framework Directive, Eionet-water and state of environment reporting, and the Ecosystem accounting activities. There are indeed many links between these three water and hydrosystems-related issues in their spatial dimension and the other environmental questions.

### **3. Subject of contract**

#### **3.1 Objectives**

For reasons of comparability and timeliness, simplifications may be necessary to implement water accounts at watershed level and nevertheless ensure restitution at regional level, starting with resource asset accounts (quantity and quality, as they are defined in the SEEAW).

Since the methodologies related to both issues, as currently defined in SEEAW, are experimental, their implementation must be done under strict scientific control, upstream when the methodologies are defined and tested, and downstream when the findings are communicated to stakeholders. This will be ensured in consultation with the London Group on Environmental Accounting (sub-group on water accounting), Eurostat and its working group on environmental accounting (in relation to the implementation of a European Strategy for Environmental Accounting (ESEA)).

However, the tenderer should have in mind that the objective is the full implementation of water accounts. Hence, even though this implementation is envisaged stepwise, starting with the “hydrological cycle”, the programmes used for calculations should be capable of processing all the aspects (e.g. all those activities addressed by the NAMEA tables) without rebuilding the whole system.

The main areas of support covered by this framework contract will be:

- a. Implementing the data processing facilities needed to compute water accounts in the EEA spatial platform; computing water asset accounts for pilot and prototype studies and eventually contribute to the final production. This computation typically deals with the water balance at the adequate space and time scales, blending data from different and possibly independent sources. It is expected that, at least in the first periods of production, severe discrepancies in data appear. The contractor is expected to “tune” the results and analyse the reasons for mismatches.

The tenderer is asked to provide documented examples of the way he intends to use existing modules, develop them and streamline their implementation in the platform.

- b. To this end, support and assist the EEA and its European Topic Centres (ETCs) in specifying, collecting, reconstructing, aggregating, modelling/deriving from any relevant source the necessary data and make it suitable to the production of input-output tables and control hydrological balances. Meteorological and hydrological primary data collection is not a main part of the contract, since a large part is currently collected by ETC/Water and the EEA under Eionet or State of the Environment (SoE) data collection. However, it may be necessary to support and complement ETC/Water work in these areas in order to reach time targets and fill gaps in collected data.

The restitution of the accounts is envisaged at quarterly (time) and regional (NUTS 2, for example), and sub-unit/catchment (space) levels. At a first glance, these restitution levels require monthly data and catchment (e.g. 5,000 km<sup>2</sup>) quantity data. Regarding quality accounts, the restitution is expected at least at the yearly level and for the kmcn<sup>2</sup> computed on the “main rivers”, as defined by the water framework directive.

In parallel, broad-brush assessment, at coarse space and time levels, shall be demanded. This coarse level assessment is intended to i) demonstrate the usefulness of the accounts and ii) provide useful orders of magnitude to check the consistency of regular detailed productions.

In both cases, specific attention must be given to the linkages between the assessments and the possibility to later implement an “exergy” approach (see examples in section 4) to water accounting that provides interesting links to the other issues related to hydrosystems, for example river fragmentation and energy status of river systems.

The implementation of accounts requires recognised capabilities in GIS and optimal use of GIS-derived information. To this end, the tenderer must justify the way he intends to process calculations and share the calculations between GIS software-driven and DBMS-driven applications.

The contractor is expected to assist the EEA in the preparation of results and their presentation, reports, workshops and conferences (e.g. preparation of agendas, identification of relevant participants, preparation of workshop documents, and processing of outcomes), and in this way contribute to “capacity building” of the EEA partners, with special consideration to ETC/Water.

- c. Making recommendations to the EEA team on further elaboration of the methodological approach, with special consideration of the availability of data and the adequate time and sub-basin frames for aggregation. This part of the support is a necessary exchange of experience aiming at improving the SEEAW implementation manual.

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<sup>2</sup> Kmcn is the experimental unit for the river quality accounting, expressed in km×m<sup>3</sup>s<sup>-1</sup>

The contractor is expected to provide support to all of the above-mentioned activities, if and to the extent requested by the EEA. The exact service, timing for its provision, etc., will be agreed in specific contracts which alone shall be binding and will define the areas to cover.

The reporting language is English. Data and texts are exchanged as word processing, spreadsheets and/or as databases compatible with the EEA data IT system. All materials are to be delivered in a format compatible with the EEA's IT system and the tools currently in use in the EEA.

### **3.2 Geographical area to be covered**

By definition, water accounts are primarily carried out at the “watershed” level and are fuelled by data from watershed and administrative levels. They are reported at both watershed and administrative levels.

Most of the EEA activities cover the EEA member countries, with an emphasis on EU policies. However, the scope of the work under this framework contract is expected to go beyond these geographical borders to include a Pan-European perspective covering the relevant “basins” of the EEA's 38 member and collaborating countries, the 12 Eastern Europe, Caucasus and Central Asia (EECCA) countries, and the Mediterranean. For this reason, potential contractors are encouraged to form manageable groups to broaden the geographical coverage of their expertise. For a list of EEA member and collaborating countries, see:

<http://org.eea.europa.eu/documents/MemberstatesMap>

The exact catchment layers are not ready for the time being. The closest dataset is the current “ERC” that indicates the size of the catchments and the length of rivers, taken from the 1:1M EuroGeographics EuroGlobal map. The implementation of applications and provision of results should primarily apply to Western Europe (e.g. from the Meuse estuary to the French-Italian border on the Mediterranean, including the British Isles). The implementation should gradually include the Central Europe and Danube areas, Scandinavia and the rest of the Baltic catchments, for example. The final order of processing will, however, be dictated by the availability of both catchment layers and basic data to process.

### **3.3 Place of performance**

Services will mainly be performed from the contractor's premises with occasional travels, which should be limited to the necessary minimum and not exceed an average of 10 person-days per year for the duration of the framework contract.

### **3.4 Duration of contract**

The framework contract will be awarded for a period of four years. On the basis of this framework contract, specific contracts will be issued detailing the subject, duration, price and implementing conditions.

### 3.5 Working language

The working language is English, unless otherwise specified, and deliverables under specific contracts shall be provided in English.

## 4. Documentation for tenderers

- System of Environmental-Economic Accounting for Water  
[http://unstats.un.org/unsd/statcom/doc07/SEEAW\\_SC2007.pdf](http://unstats.un.org/unsd/statcom/doc07/SEEAW_SC2007.pdf)

- Spanish accounts:

<http://taugroup.es/spip.php?article120>

[http://eea.eionet.europa.eu/Public/irc/eionet-circle/leac/library?l=/water\\_ecosystem/ponencia\\_cuentas/EN\\_1.0\\_&a=d](http://eea.eionet.europa.eu/Public/irc/eionet-circle/leac/library?l=/water_ecosystem/ponencia_cuentas/EN_1.0_&a=d)

- “Exergy” publications: the “exergy” concept has been developed for different purposes, e.g. biomass and capacity of system to produce renewable work. The key document is:

*Valero, A., Uche, J., Valero, A., et al, 2007. “Physical Hydromomics: application of the exergy analysis to the assessment of environmental costs of water bodies. The case of the Inland Basins of Catalonia”. Seminari sobre costos i comptes de l'aigua a Catalunya en relacio amb la Directiva marc de l'aigua, 18-19 June 2007. 2007, Barcelona, Generalitat de Catalunya, p. 10.*

[http://ies.jrc.cec.eu.int/fileadmin/Documentation/Reports/RWER/EUR\\_2006-2007/EUR\\_22513\\_EN.pdf](http://ies.jrc.cec.eu.int/fileadmin/Documentation/Reports/RWER/EUR_2006-2007/EUR_22513_EN.pdf)

[http://teide.cps.unizar.es:8080/pub/publicir.nsf/codigos/0436/\\$FILE/cp0436.pdf](http://teide.cps.unizar.es:8080/pub/publicir.nsf/codigos/0436/$FILE/cp0436.pdf)

- Simplified accounts (quality) by Ifen, *Les comptes de la qualité des cours d'eau : mise en œuvre d'une méthode simplifiée de calcul - Développements en cours (n° ET25) - Novembre 1999* (not downloadable), available in PDF format.

- The “spatial platform” is both the spatial integration concept defined by the spatial group in the BSS programme and the gradual integration of tools to process environmental data in a spatial way. For the time being, this integration comprises the NOPOLU *Système 2* (developed by Pöyry consultants), used for example to produce representative assessments of river quality ([http://reports.eea.europa.eu/technical\\_report\\_2007\\_10/en](http://reports.eea.europa.eu/technical_report_2007_10/en)), river quality pilot accounts, river fragmentation by dams, etc.

- Regarding i) the dams database and ii) river fragmentation that are firstly an important data set and secondly an important link to consider in the tender, the provisional documents are available as PDF files for information only.

## 5. Volume of contract

The maximum budget for the duration of the Framework contract is EUR 600,000.

## 6. Price

Prices must be quoted in EUR. The tenderer shall quote daily rates for: project leader, senior consultant, junior consultant and assistant which will be evaluated on the basis of a calculated average (as indicated under 8.3). Prices shall be all-inclusive (*inter alia* of administrative and travel costs).

The price quoted shall be fixed and not subject to revision for implementation during the first year of duration of the Contract.

From the beginning of the second year of duration of the Contract, 80% of each price 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 three months before the anniversary of the date on which it was signed. The EEA shall purchase on the basis of the prices in force on the date on which specific contracts are signed. Such prices shall not be subject to revision.

This revision shall be determined by the trend in the harmonised consumer price index, MUICP, published for the first time by the Office for Official Publications of the European Communities in the Eurostat monthly bulletin at <http://www.ec.europa.eu/eurostat/>.

Revision shall be calculated in accordance with the following formula:

$$Pr = Po \left( 0,2 + 0,8 \frac{Ir}{Io} \right)$$

where:

Pr = revised price;

Po = price in the original tender;

Io = index for the month corresponding to the final date for submission of tenders;

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

## 7. Contractual terms and guarantees

In drawing up his bid the tenderer should bear in mind the provisions of the standard contract attached to this invitation to tender

## 8. Criteria

### 8.1 Exclusion criteria

Tenderers shall be excluded from participation in a procurement procedure if:

(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 judgment 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 judgment which has the force of res judicata for fraud, corruption, involvement in a criminal organisation or any other illegal activity detrimental to the Communities' financial interests;

(f) following another procurement procedure or grant award procedure financed by the Community budget, they have been declared to be in serious breach of contract for failure to comply with their contractual obligations.

Tenderers must provide a declaration on their honour, duly signed and dated, stating that they are not in one of the situation listed above (see Annex 1).

Potential contractors might be requested, at a later stage, to certify that they are not in one of the situations listed above by providing:

i) For points (a), (b) and (e) a recent extract from the judicial record, or failing that, a recent equivalent document issued by a judicial or administrative authority in the country of origin or provenance showing that those requirements are satisfied.

ii) For point (d) a recent certificate issued by the competent authority of the State concerned.

Where the document or certificate referred above is not issued in the country concerned and for other cases of exclusion, 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.

Contracts may 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.

## **8.2 Selection criteria as indicated in Section III.2 (Conditions for participation) of the Contract notice**

### **8.3 Award criteria**

The contract will be awarded to the tenderer with the best price-quality ratio, taking into account the following criteria:

#### **8.3.1 Technical merit (TM) (80 points maximum/48 points minimum)**

In order to be technically compliant, it is necessary to reach the minima for each sub-criterion as well as the total minimum of 24 out of 40 points for A and for B.

- A.** Understanding of the objectives of the contract and the scientific and technical complexities attached to the work to be carried out (40 points maximum/24 points minimum; otherwise discarded as technically non-compliant);
- B.** Quality and relevance of the proposed approach to meet the tender objectives (40 points maximum/24 points minimum; otherwise discarded as technically non-compliant).

The analysis of criteria A and B is made according to the following table, based on the evidence and arguments provided in the technical proposal.

<b>No.</b>	<b>Sub-criteria related to the understanding and scientific capacity</b>	<b>Max. points</b>	<b>Min. required</b>
A-1.	Level of knowledge of SEEAW and of SEEA	10	4
A-2.	Level of capacity to apply SEEAW at the watershed level and develop a computation facility involving heterogeneous data	8	4
A-3.	Level of capacity to handle, develop and analyse SEEAW oriented results in a complex context related to water (economy, hydrology, legislation, e.g. WFD)	8	4
A-4.	Level of capacity to specify, collect and make data suitable for SEEAW (quantity, quantity) tables	8	4
A-5.	Level of capacity to insert the SEEAW application in the “exergy” concept and in the “ecosystem fragmentation” approach	6	3
<b>Total A</b>		<b>40</b>	<b>19</b>

No.	Sub-criteria related to the quality and relevance of the proposal to meet objectives	Max. points	Min. required
B-1.	Geographical diversity of experts envisaged in the team	8	3
B-2.	Coverage of the different methodological, technical and reporting issues involved in the application	10	5
B-3.	Facility to integrate the proposed developments in the EEA platform and flexibility of the approach	10	5
B-4.	Management of the application on the short and medium term (pilot project, prototype and capacity building)	6	3
B-5.	Composition of the team	6	3
<b>Total B</b>		<b>40</b>	<b>19</b>

Tenders scoring less than the required minima for technical merit in either A or B, for any individual sub-criterion or sum of points, will not be considered further.

### 8.3.2 Price (P) (20 points maximum)

Tenderers shall quote all-inclusive daily rates for the following categories of staff (regardless of company affiliation), the average of which (as indicated) will be taken into account for the price evaluation, leading to the award of points according to the following formula:

Profile	Description	Daily rate (EUR)
<b>Project leader (PL)</b>	Experienced manager + expert	
<b>Senior consultant (SC)</b>	Highly experienced consultant	
<b>Junior consultant (JC)</b>	Less experienced consultant	
<b>Assistant (A)</b>	Support staff	
<b>TOTAL (Average): (P<sub>PL</sub> + P<sub>SC</sub>) + 3(P<sub>JC</sub> + P<sub>A</sub>) / 8 =</b>		<b>(EUR)</b>

*All fields are compulsory, non-compliance will lead to exclusion.*

The mean price is computed assuming that, on average, time spent by the most experienced staff is ¼ of the total time required for the execution of tasks.

Points will be awarded using the following formula:

$$P = P_{min}/P \times 20$$

The contract will be awarded to the technically compliant tender reaching the highest score  $\Sigma$  of TM + P.

## **9. Tenders**

- The tender must comprise a technical offer and a financial offer, containing one original and two copies.
- Tenders should preferably be drafted in English. Supplementary material does not need to be translated.
- Tenders from consortiums of firms or service providers must specify the role, qualifications and experience of each of the members or of the consortium and contain a letter of intent to form a consortium from each partner. The same requirements apply for subcontracting.

## **10. 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>.

Hence, it is 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.

Submitting an offer implies acceptance by the tenderer of all terms and conditions of the draft contract and its Annexes.

### **Annexes**

Annex 1: Declaration on exclusion criteria

Annex 2: Identification sheet