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DIRECTORATE-GENERAL
ENVIRONMENT
Directorate ENV – D Natural Capital
Unit ENV – D2 Biodiversity

CALL FOR TENDERS

ENV/D2/SER/2018/0012

Service Contract for supporting EU butterfly monitoring and indicators

TENDER SPECIFICATIONS

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1 INFORMATION ON TENDERING

1.1. Participation

Participation in this procurement procedure is open on equal terms to all natural and legal persons coming within the scope of the Treaties, as well as to international organisations.

It is also open to all natural and legal persons established in a third country which has a special agreement with the Union in the field of public procurement on the conditions laid down in that agreement. Where the plurilateral Agreement on Government Procurement¹ concluded within the World Trade Organisation applies, the participation to this procedure is also open to all natural and legal persons established in the countries that have ratified this Agreement, on the conditions it lays down.

For British candidates or tenderers:

Please be aware that after the UK's withdrawal from the EU, the rules of access to EU procurement procedures of economic operators established in third countries will apply to candidates or tenderers from the UK depending on the outcome of the negotiations. In case such access is not provided by legal provisions in force candidates or tenderers from the UK could be rejected from the procurement procedure.

1.2. Contractual conditions

The tenderer should bear in mind the provisions of the draft contract which specifies the rights and obligations of the contractor, particularly those on payments, performance of the contract, confidentiality, and checks and audits.

1.3. Compliance with applicable law

The tender must comply with applicable environmental, social and labour law obligations established by Union law, national legislation, collective agreements or the international environmental, social and labour conventions listed in Annex X to Directive 2014/24/EU².

1.4. Joint tenders

A joint tender is a situation where a tender is submitted by a group of economic operators (natural or legal persons). Joint tenders may include subcontractors in addition to the members of the group.

¹ See http://www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm

² Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (OJ L 94, 28.3.2014, p. 65).

In case of joint tender, all members of the group assume joint and several liability towards the Contracting Authority for the performance of the contract as a whole, i.e. both financial and operational liability. Nevertheless, tenderers must designate one of the economic operators as a single point of contact (the leader) for the Contracting Authority for administrative and financial aspects as well as operational management of the contract.

After the award, the Contracting Authority will sign the contract either with all members of the group, or with the leader on behalf of all members of the group, authorised by the other members via powers of attorney.

1.5. Subcontracting

Subcontracting is permitted but the contractor will retain full liability towards the Contracting Authority for performance of the contract as a whole.

Tenderers are required to identify all subcontractors and provide an indication of the proportion of subcontracting. See Annex 2, questionnaire for joint bids and subcontracting.

During contract performance, the change of any subcontractor identified in the tender or additional subcontracting will be subject to prior written approval of the Contracting Authority.

1.6. Structure and content of the tender

The tenders must be presented as follows:

Part A: Identification of the tenderer (see section 1.7)

Part B: Non-exclusion (see section 2.2)

Part C: Selection (see section 2.3)

Part D: Technical offer (see section 3)

Part E: Financial offer (see section 2.6)

1.7. Identification of the tenderer

The tender must include a cover letter signed by an authorised representative presenting the name of the tenderer (including all entities in case of joint tender) and identified subcontractors if applicable, and the name of the single contact point (leader) in relation to this procedure. Coherence must be ensured between the information in the cover letter and in Annex 1.

In case of joint tender, the cover letter must be signed either by an authorised representative for each member, or by the leader authorised by the other members with powers of attorney. The signed powers of attorney must be included in the tender as well. Subcontractors that are identified in the tender must provide a letter of intent signed by an authorised representative

stating their willingness to provide the service presented in the tender and in line with the present tender specifications.

The tenderer (and each member of the group in case of joint tender) must declare whether it is a Small or Medium Size Enterprise in accordance with [Commission Recommendation 2003/361/EC](#). This information is used for statistical purposes only.

All tenderers (including all members of the group in case of joint tender) must provide a signed Legal Entity Form with its supporting evidence. The form is available on: http://ec.europa.eu/budget/contracts_grants/info_contracts/legal_entities/legal_entities_en.cfm

Tenderers that are already registered in the Contracting Authority's accounting system (i.e. they have already been direct contractors) must provide the form but are not obliged to provide the supporting evidence.

The tenderer (or the leader in case of joint tender) must provide a Financial Identification Form with its supporting documents. Only one form per tender should be submitted. No form is needed for subcontractors and other members of the group in case of joint tender. The form is available on: http://ec.europa.eu/budget/contracts_grants/info_contracts/index_en.cfm

2 EVALUATION AND AWARD

2.1.Evaluation steps

The evaluation is based solely on the information provided in the submitted tender. It involves the following:

- Verification of non-exclusion of tenderers on the basis of the exclusion criteria
- Selection of tenderers on the basis of selection criteria
- Verification of compliance with the minimum requirements set out in these tender specifications
- Evaluation of tenders on the basis of the award criteria

The contracting authority may reject abnormally low tenders, in particular if it established that the tenderer or a subcontractor does not comply with applicable obligations in the fields of environmental, social and labour law.

The Contracting Authority will assess these criteria in no particular order. The successful tenderer must pass all criteria to be awarded the contract.

2.2.Verification of non-exclusion

All tenderers must provide a declaration on honour (see Annex 5), signed and dated by an authorised representative, stating that they are not in one of the situations of exclusion listed in that declaration on honour.

In case of joint tender, each member of the group must provide a declaration on honour signed by an authorised representative.

In case of subcontracting, subcontractors whose capacity is necessary to fulfil the selection criteria must provide a declaration on honour signed by an authorised representative.

The Contracting Authority reserves the right to verify whether the successful tenderer is in one of the situations of exclusion by requiring, at any point during the procedure, the supporting documents listed in the declaration on honour.

In any event, the successful tenderer must provide the documents mentioned in the declaration on honour before signature of the contract and within a deadline given by the contracting authority. This requirement applies to each member of the group in case of joint tender and to subcontractors whose capacity is necessary to fulfil the selection criteria.

The obligation to submit supporting evidence does not apply to international organisations.

A tenderer (or a member of the group in case of joint tender, or a subcontractor) is not required to submit the documentary evidence if it has already been submitted for another procurement procedure and provided the documents were issued not more than one year before the date of their request by the contracting authority and are still valid at that date. In such cases, the tenderer must declare on its honour that the documentary evidence has already been provided in a previous procurement procedure, indicate the reference of the procedure and confirm that there has been no change in its situation.

A tenderer (or a member of the group in case of joint tender, or a subcontractor) is not required to submit a specific document if the contracting authority can access the document in question on a national database free of charge.

2.3.Selection criteria

Tenderers must prove their legal, regulatory, economic, financial, technical and professional capacity to carry out the work subject to this call for tender.

The tenderer may 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 Contracting Authority 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.

2.3.1. Declaration and evidence

The tenderers (and each member of the group in case of joint tender) and subcontractors whose capacity is necessary to fulfil the selection criteria must provide the declaration on honour (see Annex 5), signed and dated by an authorised representative, stating that they fulfil the selection criteria applicable to them individually. In case of joint tender or subcontracting, the criteria applicable to the tenderer as a whole will be verified by combining the various declarations for a consolidated assessment.

This declaration is part of the declaration used for exclusion criteria (see section 2.2) so only one declaration covering both aspects should be provided by each concerned entity.

The Contracting Authority will evaluate selection criteria on the basis of the declaration on honour and evidence submitted for the legal and regulatory, financial and economic and technical and professional capacity of the tenderers.

A tenderer (or a member of the group in case of joint tender, or a subcontractor) is not required to submit the documentary evidence if it has already been submitted for another procurement procedure and provided the documents were issued not more than one year before the date of their request by the contracting authority and are still valid at that date. In such cases, the tenderer must declare on its honour that the documentary evidence has already been provided in a previous procurement procedure, indicate the reference of the procedure and confirm that there has been no change in its situation.

A tenderer (or a member of the group in case of joint tender, or a subcontractor) is not required to submit a specific document if the contracting authority can access the document in question on a national database free of charge.

2.3.2. Legal and regulatory capacity criteria and evidence

Tenderers must prove that they are allowed to pursue the professional activity necessary to carry out the work subject to this call for tenders. The tenderer (including each member of the group in case of joint tender) must provide the following information in its tender if it has not been provided with the Legal Entity Form:

- For legal persons, a legible copy of the notice of appointment of the persons authorised to represent the tenderer in dealings with third parties and in legal proceedings, or a copy of the publication of such appointment if the legislation applicable to the legal person requires such publication. Any delegation of this authorisation to another representative not indicated in the official appointment must be evidenced.
- For natural persons, if required under applicable law, a proof of registration on a professional or trade register or any other official document showing the registration number.

2.3.3 Economic and financial capacity criteria and evidence

The tenderer must have the necessary economic and financial capacity to perform this contract until its end. The tenderer must comply with the following selection criteria:

Annual turnover of the last two financial years above EUR 800 000 (eight hundred thousand euros); this criterion applies to the tenderer as a whole, i.e. the combined capacity of all members of a group and identified subcontractors in case of a joint tender.

In order to prove their capacity, the tenderer must submit with its tender the following evidence:

- Copy of the profit and loss accounts for the last two years for which accounts have been closed from each concerned legal entity;

- Failing that, appropriate statements from banks;
- If applicable, evidence of professional risk indemnity insurance.

If, for some exceptional reason which the Contracting Authority considers justified, a tenderer is unable to provide one or other of the above documents, it may prove its economic and financial capacity by any other documents which the Contracting Authority considers appropriate. In any case, the Contracting Authority must at least be notified of the exceptional reason and its justification. The Commission reserves the right to request any other document enabling it to verify the tenderer's economic and financial capacity.

2.3.4 Technical and professional capacity criteria and evidence

a. Criteria and evidence relating to tenderers

Tenderers (in case of a joint tender the combined capacity of all members of the group and identified subcontractors) must comply with the criteria listed below:

The project references indicated below consist of a list of relevant services provided (i.e. fully delivered) in the past three years, with the sums, dates and clients, public or private, accompanied by statements issued by the clients.

- **Criterion A1:** The tenderer must prove experience in the field of conservation biology and in particular of butterfly conservation as well as in survey techniques, data collection, statistical analyses, drafting reports and recommendations.

Evidence A1: The tenderer must provide references for 3 projects delivered in these fields in the last three years with a minimum value for each project of € 150 000.

- **Criterion A2:** The tenderer must prove capacity to work in French, English, German and Spanish.

Evidence A2: The tenderer must provide references for 3 projects delivered in the last three years showing the necessary language coverage.

- **Criterion A3:** The tenderer must prove capacity to draft reports in English.

Evidence A3: The tenderer must provide one document of at least 10 pages (report, study, etc.) in this language that it has drafted and published or delivered to a client in the last two years. The verification will be carried out on 5 pages of the document.

- **Criterion A4:** The tenderer must prove its capacity to work in more than 10 EU countries.

Evidence A4: The tenderer must provide references for 3 projects delivered in the last 3 years.

In order to prove their capacity, the tenderer must submit with its tender the evidence listed above.

b. Criteria and evidence relating to the team delivering the service:

The team delivering the service should include, as a minimum, the following profiles:

Criterion B1 - Project Manager: At least 5 years' experience in project management, including overseeing project delivery, quality control of delivered service, client orientation and conflict resolution experience in projects of a similar size (at least € 500 000) and coverage (at least 10 countries covered), with experience in management of teams of at least 5 people.

Evidence B1: CV

Criterion B2 - Language quality check: At least 2 members of the team should have at least C1 level in the Common European Framework for Reference for Languages³ in English.

Evidence B2: A language certificate or past relevant experience.

Criterion B3 - Experts in conservation biology: At least 5 years of professional experience. Relevant higher education degree or equivalent professional experience and at least 3 years' professional experience in the field.

Evidence B3: CV

Criterion B4 - Team for data collection: Collectively the team of at least 5 people should have knowledge of the following EU languages: **English, French, German and Spanish** and proven experience of 3 years in data collection techniques.

Evidence B4: CV and a language certificate or past relevant experience.

In order to prove their capacity, the tenderer must submit with its tender the evidence listed above.

2.4. Compliance with the minimum requirements

The technical offer must cover all aspects and tasks required in the technical specifications and provide all the information needed to apply the award criteria. Offers deviating from the requirements or not covering all requirements may be rejected on the basis of non-compliance with the tender specifications and will not be evaluated.

³ See http://www.coe.int/t/dg4/linguistic/Cadre1_en.asp

2.5. Award criteria

The contract will be awarded to the most economically advantageous tender, according to the 'best price-quality ratio' award method. The quality of the tender will be evaluated based on the following criteria. The maximum total quality score is 100 points.

A maximum of 50 points will be attributed to criterion 1, a maximum of 30 points will be attributed to criterion 2, and a maximum of 20 points will be attributed to criterion 3. In addition a minimum threshold will be set up under this system of points:

- Technical sufficiency levels: Selected companies will have to score a minimum of 25, 15 and 10 points under criteria 1, 2 and 3 respectively, with a minimum total of 65 points.

Assessment of the tenders will focus on the quality of the proposed services therefore tenderers should elaborate on all points addressed by these specifications in order to score as many points as possible. The mere repetition of mandatory requirements set out in these specifications, without going into details or without giving any added value, will only result in a very low score. In addition, if certain essential points of these specifications are not expressly covered by the tender, the Commission may decide to give a zero mark for the relevant qualitative award criteria.

1 Quality of the proposed methodology (50 points – minimum threshold 50%)

The degree to which the methodology shows the capacity to analyse, review and evaluate documents and figures, in accordance with the needs of the contracting authority will be assessed under this criterion. Furthermore the tender must demonstrate the capacity to resolve the questions underlying in the tender in a realistic and well-structured way, as well as demonstrate that the methods proposed are suited to the needs set out by the Commission in the Technical Specifications (see part 3).

2 Organisation of the work and allocation of resources (30 points – minimum threshold 50%)

This criterion will assess how the roles and responsibilities of the proposed team and of the economic operators (in case of joint tenders, including subcontractors if applicable) are distributed for each task. It also assesses the global allocation of time and resources to the project and to each task or deliverable, and whether this allocation is adequate for the work. The tender should provide details on the allocation of time and resources and the rationale behind the choice of this allocation. Details should be provided as part of the technical offer and not simply as part of the financial offer.

3 Quality control measures (20 points – minimum threshold 50%)

This criterion will assess the quality control system applied to the service foreseen in these tender specifications concerning the quality of the deliverables, the language quality check, and continuity of the service in case of absence of a member of the team. The quality control system should be detailed in the tender and specific to the tasks at hand; a generic quality control system will result in a low score.

2.5.1 Ranking and Award

Having examined the tenders from a technical point of view, the evaluation committee will proceed considering which is the economically most advantageous offer taking into account **only those tenders that have obtained at least 65 out of the 100 points that are available for the technical quality of the bid**. The evaluation committee will then proceed with the financial comparison of the tenders retained for further consideration according to the ranking procedure below.

The bid offering the best value for money will be chosen, provided that the minimum number of points cited above is achieved. The ranking of the tenders will be calculated as follows:

- All bids that do not reach the stated technical sufficiency levels for each individual award criteria will not be considered for contract award.
- All bids that have passed the individual levels and score 65 or higher are deemed to be technically sufficient. Then the price is divided by the total number of points awarded to obtain the price-quality ratio. The award of the contract will be made in accordance with the lowest ratio.

The Commission reserves the right not to select any tender if the amounts tendered exceed the budget envisaged for this project.

2.6.Financial offer

The maximum budget allocated to this contract is fixed at € 800 000 (eight hundred thousand euros) excluding VAT (including fees, travel and all other costs. **Travel and subsistence expenses should be part of the lump sum and will not be refunded separately**). Any offers received that do not respect this maximum budget will be automatically excluded from the evaluation procedure. For guidance purposes see Annex 3.

The price for the tender must be quoted in euro. Tenderers from countries outside the euro zone have to quote their prices in euro. The price quoted may not be revised in line with exchange rate movements. It is for the tenderer to assume the risks or the benefits deriving from any variation.

Prices must be quoted free of all duties, taxes and other charges, including VAT, as the European Union is exempt from such charges under Articles 3 and 4 of the Protocol on the privileges and immunities of the European Union. The amount of VAT may be shown separately.

3 TECHNICAL SPECIFICATIONS

3.1 General Background and Reference Documents

The pilot project will develop a suite of EU butterfly indicators which can help improve conservation measures and assess progress in implementing EU policies and legislation such as the EU Biodiversity Strategy to 2020 and the EU Habitats Directive⁴. Besides providing important information on the state of grassland butterflies as important pollinators, it is also a highly relevant indicator for measuring progress in terms of managing and restoring Natura 2000 sites, it will also contribute to monitoring progress on Target 3 of the EU Biodiversity Strategy, which aims to increase the contribution of agriculture and forestry to maintaining and enhancing biodiversity. In particular, the pilot project will deliver a representative indicator to help monitor the impact of the Common Agricultural Policy on grassland biodiversity. It will also provide data to produce a climate change indicator, thereby contributing to the ongoing revision of climate change adaptation strategies. Indicators will also be possible for woodland, wetland and urban habitats.

Such indicators are needed for tracking and stimulating progress towards the EU and global headline biodiversity target for 2020, the post 2020 EU and global biodiversity policy frameworks, and the Sustainable Development Goals (SDGs). The project is highly policy-relevant and can provide several benefits at EU level, such as linking science and policy and strengthening the evidence and knowledge base for EU policy-making; linking the efforts of citizens/volunteers to policy makers in Member States where this has not been a tradition; increasing professional opportunities for young people across Europe and increasing their skills; and linking knowledge across the environment and agriculture sectors, and involving climate change researchers and policy makers.

It can help to raise the profile of biodiversity and the importance of agricultural policy and practice to biodiversity recovery and contribute to the ongoing discussion on innovative agro-ecology approaches, paving the way for sustainable innovation in agriculture. Currently, most Natura 2000 semi-natural grasslands and other habitats and species dependent on agro-ecosystems are not in good conservation status and are still deteriorating. More concerted action is required to sustain and restore them and to assist the recovery of butterflies, moths and other pollinators. This project can further assist with improving the implementation by EU Member States of the EU Habitats Directive and stimulating further actions to improve the conservation status of Natura 2000 *Lepidoptera* and the habitats they depend on. It will complement the existing farmland birds' indicators as butterflies are particularly sensitive to habitat quality and to the condition of ecosystems at a landscape scale. Moreover, this project replaces an ad hoc approach to butterfly monitoring and indicator reporting with a sustainable system that covers more Member States, more records and which is more representative, in order to be more widely accepted.

This coherent project will enable the development of a system for collecting and recording validated butterfly data at European level so as to allow cost-effective and regular updating of a grassland butterfly indicator and other indicators. This will be a significant improvement on

⁴ http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

the current approach. It involves the further development and construction of a well-designed database with processes for collating systematic records of butterfly numbers along a fixed route or transect (a methodology already agreed with European Environment Agency (EEA)) from more countries and a process for regularly compiling and updating a suite of butterfly indicators.

The project will enable new monitoring schemes to be set up in some Member States where there are none at present and contribute to building capacity. This will involve, inter alia, finding citizen volunteers, training them, giving them some support and enabling them to report their findings cost-effectively. Validation and quality control can be effectively achieved in those Member States with modest support for knowledgeable part-time coordinators. This will help increase opportunities and skills for young people.

As a result of this project we will have a greatly improved EU network for monitoring butterflies, more transects walked each year, more EU Member States and more citizens involved in monitoring, and a suite of butterfly indicators and a comprehensive database that can provide a valuable resource for researchers, policy makers and evaluators. Results will be used to inform policy debates, improve policy implementation and raise the profile of biodiversity and ecosystem services, including pollination services.

3.2 General and specific objectives

The general objective of the project is to create a representative butterfly monitoring network across the Union in order to develop a suite of butterfly indicators to contribute to the improvement of the targeting and efficiency of conservation measures under the Council Directive 92/43/EEC⁵ and also to inform the biodiversity impact of European sectoral and land use policies.

The specific objectives are:

1. to produce policy-relevant butterfly indicators for a range of habitats, analyse results and disseminate findings to policy makers and the public;
2. to support and develop a unified, sustainable and cost-effective European butterfly monitoring network based on trained volunteer recorders, supported by new coordinators, together with local access to an on-line data recording system;
3. to construct a unified, high-quality butterfly database and automated data entry system for the indicators;

3.3 Description of the Tasks

The three main tasks to be undertaken under the current contract will be 1) the production of policy-relevant butterfly indicators for a range of habitats, analysing results and

⁵ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora OJ L 206, 22.7.1992, p. 7–50

dissemination of findings to policy makers and the public; 2) the support and development of a unified, sustainable and cost-effective European butterfly monitoring network based on trained volunteer recorders, supported by new coordinators, together with access to an on-line data recording system; and 3) the construction of a unified, high-quality butterfly database and automated data entry system for the indicators.

Task 1: Producing policy-relevant butterfly indicators for a range of habitats, analysing results and disseminating findings to policy makers and the public. These indicators will be compatible with the indicator management systems of the European Environment Agency and Eurostat⁶.

Activities:

- Developing automated systems for producing annual indicators of status and trends of butterfly abundance in different types of ecosystems. Initial selection: grassland habitats, woodland, wetland, urban areas and climate change;
- Producing a European butterfly indicator showing the general trend in butterfly populations on an EU scale.
- Producing an EU butterfly indicator to inform on the effectiveness of conservation measures taken for butterflies (including those listed in Annex II of the Habitats Directive) and their habitats in the Natura 2000 network of sites, if relevant land management data is available;
- Producing reports on the European grassland butterfly indicator with a wider geographical coverage (covering more countries than the current one) and helping, inter alia, to monitor the impact of the Common Agricultural Policy on biodiversity, and developing baselines for monitoring the implementation of a more result oriented CAP post 2020;
- Producing reports on butterfly trends in woodland, wetland and urban habitats at different scales (EU, national);
- Showing how butterfly communities are responding to rising temperatures and climate change;
- Disseminating results to relevant institutions, including the EU, the Council of Europe, the Berne Convention and the UN Convention on Biological Diversity, and thereby contributing to policy debates and action at EU and national levels;
- Working with representatives involved with other invertebrate groups to share knowledge and contribute to implementation of the EU pollinator initiative;
- Disseminating the results more widely to the public via websites and social media.

Expected results: Task 1 implementation will begin in Year 1 and be completed in Year 2. It will deliver a suite of policy-relevant butterfly indicators for different habitats within the EU as a whole and according to the standard formats of the European Environment Agency and Eurostat; a series of reports which interpret the significance of butterfly indicators and trends; increased understanding among policy makers of the impact of their policies on butterflies,

⁶ See <https://www.eea.europa.eu/data-and-maps/indicators/> and <http://ec.europa.eu/eurostat/data/statistics-a-z/abc>

ecosystems and their services, including pollination services; promotion of butterfly indicators to be adopted by the EU and EEA; development of baselines for evaluation of EU policy implementation on national and regional scales, sharing of best practice; and improved awareness amongst the public. Based on the lessons learned during this contract, the contractor will make recommendations to the Commission concerning future development of an EU monitoring scheme for pollinators in general, including a headline pollinator indicator, and identification of the capacity and data/knowledge gaps

Task 2: Supporting and developing a unified, sustainable and cost-effective European monitoring network based on trained volunteer recorders, supported by new coordinators, together with local access to the on-line data recording system.

Activities:

- Organising the data collection and ensuring that existing butterfly monitoring schemes contribute data to a central database;
- Supporting further development and improving the quality and sustainability of a number of existing and fledgling schemes, especially by adding transects, improving frequency of recording and recruiting more volunteers and supporting coordinators (e.g. in France, Slovenia, Estonia, Lithuania and Spain);
- Working with partners and other key stakeholders, including national parks, where appropriate, to help set up new monitoring schemes in at least six of the following countries: Austria, Czech Republic, Italy, Portugal, Romania, Slovakia, Hungary, Poland, Bulgaria, Croatia, Greece, Cyprus, Malta, Denmark and Latvia; the way to deal with the multi-language nature of the work should be demonstrated;
- Providing training and essential translations and facilitating learning among volunteers;
- Providing feedback to volunteers and coordinators in the form of annual newsletters and by organising biennial meetings to co-ordinate efforts, share best practice and nurture long-term volunteer engagement.

Expected results: Task 2 will be partially implemented in the 4th Quarter of year 1 and completed in Year 2 and contribute to the establishment of volunteer-based and expert-validated butterfly monitoring schemes in most European Union countries, reporting high-quality data in standard formats compatible with the European Environment Agency and Eurostat⁷ to central databases and providing input for national records.

It will also lead to increased opportunities for young people to become involved in a European-level project of practical value and policy importance, increasing their skills and employability and creating new jobs requiring coordination, data management, people skills and professional knowledge.

⁷ See section 9 of the EEA Data Quality Framework.

Task 3: Constructing a unified, high-quality and automated data entry system.

Main activities:

- Organising an effective system for butterfly monitoring records which can produce a suite of butterfly indicators;
- Establishing legal data sharing agreements with new monitoring schemes as they come on stream, based on the agreements which cover established schemes to clarify intellectual property rights and rights of access to data;
- Gathering data annually from existing monitoring schemes, validating counts and populating databases;
- Developing an online data entry system and allowing countries to submit data efficiently and in a standard format compatible with standard reporting systems from the European Environment Agency and Eurostat⁸ (NB: some existing schemes are also adopting such a system);
- Providing training for monitoring scheme volunteers in using the online data entry system;
- Providing methodologies for calculating national butterfly population trends;
- Making the records available for research as appropriate;
- Transferring the outcomes to the European Environment Agency and Eurostat for further processing in their indicator management systems⁹.

Expected results: Task 3 will be partially implemented in the 4th quarter of the first contractual year and completed in year 2 and will contribute to the development of a unified system of validated and standardised butterfly counts from across European monitoring schemes, producing regular reports on butterfly indicators and enriching research, which will contribute to the integrated spatial data infrastructure for natural capital developed by the European Environment Agency, the Joint Research Centre, Eurostat and DG Environment.

Project management and administration

Activities:

- Managing the project to ensure delivery of the above and produce annual progress reports;
- Establishing contracts to deliver the above components;
- Administering finances for the project on a sound basis;
- Producing annual progress reports and evaluating impacts.

⁸ See EEA Data Quality Framework, section 9 which provides all relevant references and links to online documents of Eurostat and EEA about data quality requirements, formats, etc.; links to international standards used by EEA (and Eurostat) are also included.

⁹ See section 9 of the EEA Data Quality Framework.

These activities will be implemented throughout the project and result in the smooth running of the project; timely delivery of the above components on budget; annual progress reports; annual financial reports and overall evaluation of impacts.

- Intermediate outputs and deliverables:

The contractor will provide the following deliverables:

i) an inception report to be prepared within 4 weeks of the beginning of the first contractual year, summarising the organisation of the tasks. The methodology presented in the tender should be elaborated further in this report, in particular the approach that will be used to deal with the sequencing of the work during the contractual years and conceptual outline of the products to be delivered in the course of each contractual year. The draft report will be discussed at a kick-off meeting in Brussels (to take place within 6 weeks after signature of the contract).

ii) an interim report to be delivered within 6 months of the beginning of each contractual year (the contractual year is defined as each 12 month period from date of signature of the contract), including detailed information about the progress made on the different tasks. The interim report will be presented and discussed at the interim progress meeting/videoconference and finalised after the meeting.

iii) an annual progress report to be delivered within 12 months after the beginning of the contractual year (i.e. at the end of the 12 month period from the date of signature of the contract), including detailed information on the results of the work and progress in implementing the tasks, as well as the concrete draft products. The final annual report will be presented and discussed at and finalised after the meeting/videoconference at the end of the first contractual year. An Annex to the annual progress report for years 1 will provide updated methodology and work plan for the following contractual year.

- Final output and deliverable: A final report will be delivered to the Commission no later than 24 months after contract signature, to be discussed at a final meeting. This report will include a synthesis of the 2-year contract, the deliverables requested under each Task, lessons learned and recommendations.

Data analyses produced, methodologies developed, summary data on trends, information and results of studies undertaken as part of the project, will be made available online and published on BISE¹⁰. Analytical papers and consultation reports will be published by the Commission on EUROPA as appropriate. Three copies of the final report will be provided in English in pdf format.

- General delivery time and progress meetings foreseen with the Contracting Authority: three meetings are foreseen in DG ENV in Brussels – an inception meeting at the beginning of the contract to finalise the work plan, an interim meeting to take stock of progress made by the contract after 12 months and a final meeting at the end of the contract to discuss the final report. The envisaged further interim and final annual meetings will take place via tele-conference. Participation may be required from the Contractor in meetings under the EU Biodiversity

¹⁰ <https://biodiversity.europa.eu/>

Strategy Common Implementation Framework (e.g. the Coordination Group on Biodiversity and Nature) in Brussels, with presentation of progress or specific products under the contract. The foreseen maximum of meetings participation is once a year.

Missions

Possible missions may be required (maximum once a year to each institution and up to two days per mission) to DG ENV in Brussels, and the EEA in Copenhagen (Denmark).

Duration of the tasks

The tasks should be completed within 24 months of the signature of the contract. The execution of the tasks may not start before the contract has been signed.

Place of performance

The place of performance of the tasks shall be the contractor's premises or any other place indicated in the tender, with the exception of the Commission's premises.

ANNEX 1 - ADMINISTRATIVE INFORMATION FORM

(To be signed by the tenderer only or the lead tenderer in the case of joint bids)

Organisation or individual:

NAME:

ADDRESS:

Address where contract should be sent to (if different from above):

.....

PERSON AUTHORISED TO SIGN CONTRACT:

Name and position:

PERSON FOR ROUTINE CONTACT:

Name and position:

ADDRESS:

Telephone and E-mail:

Signature of Tenderer

ANNEX 2 – QUESTIONNAIRE FOR JOINT BIDS AND SUBCONTRACTING

(To be completed and signed by the lead tenderer)

Joint bid (refer to paragraph 1.4)

1. Does your bid involve more than one tenderer? Yes ☐ No ☐

Questions 2 - 4 shall be answered only if you have answered yes to question 1.

2. Please fill in the name of the company having power of attorney for the group of tenderers and acting as a co-ordinator:

3. Please fill in the names of the other companies taking part in the joint offer:

4. If a consortium or similar entity exists, please fill in the name and the legal status of the entity:

Subcontracting (refer to paragraph 1.5)

5. Does your bid involve subcontracting? Yes ☐ No ☐

If the answer is yes, please complete question 6, and the next page per sub-contractor.

6.

List of sub-contractors:

Percentage of subcontracting:

.....

.....

.....

.....

Reasons, roles, activities and responsibilities of sub-contractors.

Please complete this page for each sub-contractor (one page per sub-contractor):

Name of the sub-contractor:

.....

Official legal form:

.....

Country of registration:

.....

Statutory registration number:

.....

(Internet address, if applicable):

.....

Official address in full:

.....

.....

Contact person:

.....

Telephone number:

.....

Reasons for subcontracting:

.....

Role, activities and responsibilities of the sub-contractor:

.....

The volume or the proportion of the sub-contracting:

.....

Do you intend to rely on capacities from the sub-contractor in order to fulfil the selection criteria? If yes, specify which selection criterion - financial and economic capacity or technical and professional capacity - and be aware that the tenderer must provide the documents which make it possible to assess the selection criteria.

.....

Tenderer:

Date:

Signature:

ANNEX 3 – FINANCIAL OFFER TEMPLATE

(To be completed and signed by the tenderer only or the lead tenderer in the case of joint bids)

(for guidance purposes only)

Price and Estimated budget breakdown

Calculation of the costs (incl. travel, overheads, consumables and any other related costs)

Type of service provider	Position within the project team	Number of working days	Allocation of tasks	Proportion of the contract in %	Costs in €
Lead contractor					

	<i>Sub-total</i>	.....		.....	.....
Sub-contractor 1					

	<i>Sub-total</i>	.....		.....	.....
Sub-contractor 2					

	<i>Sub-total</i>	.....		.....	.....
Sub-contractor 3					

	<i>Sub-total</i>	.....		.....	.....
Travel/other costs ¹ (if applicable)					
	Total	.....		.....	.....

Signature of Tenderer

.....

Date

.....

¹ Will be reimbursed on a lump-sum basis.

ANNEX 4 - LEGAL ENTITY AND FINANCIAL IDENTIFICATION FORMS

These forms can be downloaded from

http://ec.europa.eu/budget/contracts_grants/info_contracts/legal_entities/legal_entities_en.cfm
m (Legal entity form)

(To be signed by the tenderer and all members of the group in the case of joint tender (not necessary for subcontractors))

http://ec.europa.eu/budget/contracts_grants/info_contracts/financial_id/financial_id_en.cfm
(financial identification form)

(One form per offer to be signed by the tenderer or lead tender in the case the of joint tender)

ANNEX 5 - DECLARATION ON HONOUR ON EXCLUSION CRITERIA AND SELECTION CRITERIA

(To be completed by the tenderer, all members of a joint tender and any subcontractor whose capacity is necessary to fulfil the selection criteria)

Comments [in grey italics in square brackets] are to be deleted and/or replaced by appropriate data.

The undersigned [insert name of the signatory of this form], representing:

<i>(only for natural persons)</i> himself or herself	<i>(only for legal persons)</i> the following legal person:
ID or passport number: ('the person')	Full official name: Official legal form: Statutory registration number: Full official address: VAT registration number: ('the person')

I – SITUATION OF EXCLUSION CONCERNING THE PERSON

	YES	NO
➤ declares that the above-mentioned person is in one of the following situations:		
a) it is bankrupt, subject to insolvency or winding up procedures, its assets are being administered by a liquidator or by a court, it is in an arrangement with creditors, its business activities are suspended or it is in any analogous situation arising from a similar procedure provided for under national legislation or regulations;	<input type="checkbox"/>	<input type="checkbox"/>
b) it has been established by a final judgement or a final administrative decision that the person is in breach of its obligations relating to the payment of taxes or social security contributions in accordance with the law of the country in which it is established, with those of the country in which the contracting authority is located or those of the country of the performance of the contract;	<input type="checkbox"/>	<input type="checkbox"/>
c) it has been established by a final judgement or a final administrative decision that the person is guilty of grave professional misconduct by having violated applicable laws or regulations or ethical standards of the profession to which the person belongs, or by having engaged in any wrongful conduct which has an impact on its professional credibility where such conduct denotes wrongful intent or gross negligence, including, in particular, any of the following:		

(i) fraudulently or negligently misrepresenting information required for the verification of the absence of grounds for exclusion or the fulfilment of selection criteria or in the performance of a contract;	<input type="checkbox"/>	<input type="checkbox"/>
(ii) entering into agreement with other persons with the aim of distorting competition;	<input type="checkbox"/>	<input type="checkbox"/>
(iii) violating intellectual property rights;	<input type="checkbox"/>	<input type="checkbox"/>
(iv) attempting to influence the decision-making process of the contracting authority during the award procedure;	<input type="checkbox"/>	<input type="checkbox"/>
(v) attempting to obtain confidential information that may confer upon it undue advantages in the award procedure;	<input type="checkbox"/>	<input type="checkbox"/>
d) it has been established by a final judgement that the person is guilty of the following:		
(i) fraud, within the meaning of Article 1 of the Convention on the protection of the European Communities' financial interests, drawn up by the Council Act of 26 July 1995;	<input type="checkbox"/>	<input type="checkbox"/>
(ii) corruption, as defined in Article 3 of the Convention on the fight against corruption involving officials of the European Communities or officials of EU Member States, drawn up by the Council Act of 26 May 1997, and in Article 2(1) of Council Framework Decision 2003/568/JHA, as well as corruption as defined in the legal provisions of the country where the contracting authority is located, the country in which the person is established or the country of the performance of the contract;	<input type="checkbox"/>	<input type="checkbox"/>
(iii) participation in a criminal organisation, as defined in Article 2 of Council Framework Decision 2008/841/JHA;	<input type="checkbox"/>	<input type="checkbox"/>
(iv) money laundering or terrorist financing, as defined in Article 1 of Directive 2005/60/EC of the European Parliament and of the Council;	<input type="checkbox"/>	<input type="checkbox"/>
(v) terrorist-related offences or offences linked to terrorist activities, as defined in Articles 1 and 3 of Council Framework Decision 2002/475/JHA, respectively, or inciting, aiding, abetting or attempting to commit such offences, as referred to in Article 4 of that Decision;	<input type="checkbox"/>	<input type="checkbox"/>
(vi) child labour or other forms of trafficking in human beings as defined in Article 2 of Directive 2011/36/EU of the European Parliament and of the Council;	<input type="checkbox"/>	<input type="checkbox"/>
e) the person has shown significant deficiencies in complying with the main obligations in the performance of a contract financed by the Union's budget, which has led to its early termination or to the application of liquidated damages or other contractual penalties, or which has been discovered following checks, audits or investigations by an Authorising Officer, OLAF or the Court of Auditors;	<input type="checkbox"/>	<input type="checkbox"/>
f) it has been established by a final judgment or final administrative decision that the person has committed an irregularity within the meaning of Article 1(2) of Council Regulation (EC, Euratom) No 2988/95;	<input type="checkbox"/>	<input type="checkbox"/>
g) for the situations of grave professional misconduct, fraud, corruption, other criminal offences, significant deficiencies in the performance of the contract or	<input type="checkbox"/>	<input type="checkbox"/>

irregularity, the applicant is subject to: i. facts established in the context of audits or investigations carried out by the Court of Auditors, OLAF or internal audit, or any other check, audit or control performed under the responsibility of an authorising officer of an EU institution, of a European office or of an EU agency or body; ii. non-final administrative decisions which may include disciplinary measures taken by the competent supervisory body responsible for the verification of the application of standards of professional ethics; iii. decisions of the ECB, the EIB, the European Investment Fund or international organisations; iv. decisions of the Commission relating to the infringement of the Union's competition rules or of a national competent authority relating to the infringement of Union or national competition law; or v. decisions of exclusion by an authorising officer of an EU institution, of a European office or of an EU agency or body.		
---	--	--

II – SITUATIONS OF EXCLUSION CONCERNING NATURAL PERSONS WITH POWER OF REPRESENTATION, DECISION-MAKING OR CONTROL OVER THE LEGAL PERSON

Not applicable to natural persons, Member States and local authorities

➤ declares that a natural person who is a member of the administrative, management or supervisory body of the above-mentioned legal person, or who has powers of representation, decision or control with regard to the above-mentioned legal person (this covers company directors, members of management or supervisory bodies, and cases where one natural person holds a majority of shares) is in one of the following situations:	YES	NO	N/A
Situation (c) above (grave professional misconduct)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Situation (d) above (fraud, corruption or other criminal offence)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Situation (e) above (significant deficiencies in performance of a contract)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Situation (f) above (irregularity)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

III – SITUATIONS OF EXCLUSION CONCERNING NATURAL OR LEGAL PERSONS ASSUMING UNLIMITED LIABILITY FOR THE DEBTS OF THE LEGAL PERSON

➤ declares that a natural or legal person that assumes unlimited liability for the debts of the above-mentioned legal person is in one of the following situations:	YES	NO	N/A
Situation (a) above (bankruptcy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Situation (b) above (breach in payment of taxes or social security contributions)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	--------------------------	--------------------------	--------------------------

IV – GROUNDS FOR REJECTION FROM THIS PROCEDURE

➤ declares that the above-mentioned person:	YES	NO
h) has distorted competition by being previously involved in the preparation of procurement documents for this procurement procedure.	<input type="checkbox"/>	<input type="checkbox"/>

V – REMEDIAL MEASURES

If the person declares one of the situations of exclusion listed above, it must indicate measures it has taken to remedy the exclusion situation, thus demonstrating its reliability. This may include e.g. technical, organisational and personnel measures to prevent further occurrence, compensation of damage or payment of fines. The relevant documentary evidence which illustrates the remedial measures taken must be provided in annex to this declaration. This does not apply for situations referred in point (d) of this declaration.

VI – EVIDENCE UPON REQUEST

Upon request and within the time limit set by the contracting authority the person must provide information on the persons that are members of the administrative, management or supervisory body. It must also provide the following evidence concerning the person itself and concerning the natural or legal persons which assume unlimited liability for the debt of the person:

For situations described in (a), (c), (d) or (f), production of a recent extract from the judicial record is required or, failing that, an equivalent document recently issued by a judicial or administrative authority in the country of establishment of the person showing that those requirements are satisfied.

For the situation described in point (a) or (b), production of recent certificates 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 person is liable, including for example, VAT, income tax (natural persons only), company tax (legal persons only) and social security contributions. Where any document described above is not issued in the country concerned, it may be replaced by a sworn statement made before a judicial authority or notary or, failing that, a solemn statement made before an administrative authority or a qualified professional body in its country of establishment.

The person is not required to submit the evidence if it has already been submitted for another procurement procedure. The documents must have been issued no more than one year before the date of their request by the contracting authority and must still be valid at that date.

The signatory declares that the person has already provided the documentary evidence for a previous procedure and confirms that there has been no change in its situation:

Document	Full reference to previous procedure
<i>Insert as many lines as necessary.</i>	

VII – SELECTION CRITERIA

➤ declares that the above-mentioned person complies with the selection criteria applicable to it individually as provided in the tender specifications:	YES	NO	N/A
(a) It has the legal and regulatory capacity to pursue the professional activity needed for performing the contract as required in section 2.3.2 of the tender specifications;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) It fulfills the applicable economic and financial criteria indicated in section 2.3.3 of the tender specifications;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) It fulfills the applicable technical and professional criteria indicated in section 2.3.4 of the tender specifications.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

➤ if the above-mentioned person is the sole tenderer or the leader in case of joint tender , declares that:	YES	NO	N/A
(d) the tenderer, including all members of the group in case of joint tender and including subcontractors if applicable, complies with all the selection criteria for which a consolidated assessment will be made as provided in the tender specifications.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VII – EVIDENCE FOR SELECTION

The signatory declares that the above-mentioned person is able to provide the necessary supporting documents listed in the relevant sections of the tender specifications and which are not available electronically upon request and without delay.

The person is not required to submit the evidence if it has already been submitted for another procurement procedure. The documents must have been issued no more than one year before the date of their request by the contracting authority and must still be valid at that date.

The signatory declares that the person has already provided the documentary evidence for a previous procedure and confirms that there has been no change in its situation:

Document	Full reference to previous procedure
<i>Insert as many lines as necessary.</i>	

The above-mentioned person may be subject to rejection from this procedure and to administrative sanctions (exclusion or financial penalty) if any of the declarations or information provided as a condition for participating in this procedure prove to be false.

Full name

Date

Signature

ANNEX 6

Travel and subsistence costs

(Only applicable if the organisation of workshops/conferences is specified in the tender specifications –
Not applicable to contractor's own staff)

Travel costs must be based on the following:

- **Train**: first-class rail travel for journeys less than 400 km (one way).
- **Flight**: economy class air travel for distances of more than 400 km. Business class is allowed for a flight of 4 hours or more without stopovers.
- **Private car**: the travel shall be reimbursed at the same rate as the first-class rail ticket, or by default at the rate of 0.22 € per km.

Different travel options will not be accepted and will entail the refusal of the offer. Amounts must be quoted in EURO. Prices must be fixed amounts and be calculated exclusive of all duties and taxes.

Maximum rates for accommodation and meals.

Destination	Hotel ceiling in euros	Daily allowance in euros
Belgium	148	102
Bulgaria	135	57
Czech Republic	124	70
Denmark	173	124
Germany	128	97
Estonia	105	80
Ireland	159	108
Greece	112	82
Spain	128	88
France	180	102
Croatia	110	75
Italy	148	98
Cyprus	140	88
Latvia	116	73
Lithuania	117	69
Luxembourg	148	98
Hungary	120	64
Malta	138	88
Netherlands	166	103
Austria	132	102
Poland	116	67
Portugal	101	83
Romania	136	62
Slovenia	117	84
Slovak Republic	100	74
Finland	142	113
Sweden	187	117
United Kingdom	209	125

Rates for hotel and subsistence for countries not included in the above table will be provided by the Commission services if necessary.

ANNEX 7 - ACKNOWLEDGEMENT OF RECEIPT



EUROPEAN COMMISSION
DIRECTORATES-GENERAL ENVIRONMENT
Directorate ENV. A – POLICY
A.5 - Finance

(Please fill in your address)

ACKNOWLEDGEMENT OF YOUR TENDER

Our reference: Open Procedure ENV.D.2/SER/2018/0012

Your reference:

We wish to confirm the receipt and opening of your offer¹. Your offer will now be evaluated by the Commission and its experts. You will be informed of the result in due course.

We thank you for your interest.

MarketsTeam
ENV.A5

¹ Your personal contact data has been recorded in a database used by the Markets Team of unit ENV.A5 for the administrative management of offers. The Commission is bound by Regulation 45/2001 on the protection of individuals with regard to the processing of personal data by the Union institutions and bodies. For more information, and to exercise your rights to access and eventually correct data concerning you, please don't hesitate to contact us.

ANNEX 8 – DATA QUALITY FRAMEWORK



Data Quality Framework

Final draft for
SMT meeting 23 November 2015

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Key points of the Data Quality Framework

1. EEA's data quality management is based on international standards, Inspire specifications and those principles of the European Statistics Code of Good Practice that are relevant on the European level.
2. The data quality processes and procedures are documented.
3. The EEA publishes the data quality methodology and metadata for its data flows.
4. The EEA regularly reports on the data quality of its data flows.
5. EEA has roles and governance in place to ensure data quality.
6. EEA has a roadmap for continual data quality improvement.

1 INTRODUCTION

The Data Quality Framework defines the key principles, definitions, organisational structures and EEA processes for data quality. Data in the context of this framework is the environmental data, owned by the EEA and covered by the EEA Data policy. This includes added value data products created from source data owned by others that are collected, processed and disseminated by EEA.

The Data Quality Framework is an integrated part of the overarching Data Management Framework. The data quality procedures shall be maintained within a Quality Management System (QMS).

2 DATA QUALITY AT EEA

2.1 Vision

The EEA is mandated by its founding regulation to provide reliable and comparable environmental data at European level. The EEA recognises the importance of high data quality to fulfil this objective and is committed to ensure the best possible quality of the data it provides.

2.2 Objectives

The EEA applies comprehensive data quality management to achieve high data quality standards for its data flows. Metadata and quality metrics for the data flows are documented and available on the EEA web sites. For each data flow clear quality management procedures are developed, documented and made available. Technical solutions to improve data quality are implemented. The EEA communicates its data quality management procedures to its partners and contractors. EEA applies the concept of continual improvement to data quality management.

2.3 EEA Data policy

In March 2013 the EEA Management Board adopted the EEA Data policy. The data policy defines the legal principles for data exchange. The EEA Data policy asserts the full availability of publicly financed data within the limits of property rights and legislation and provides guidance on data sharing. The EEA Data policy is the authoritative document on data handling and sharing. The Data policy defines the responsibility for data quality.

2.4 Definition of data quality

Article 7 of the Data policy concerns data quality: *“Data providers shall retain the primary responsibility for the quality of the data they produce and distribute. For data produced by EEA, the EEA shall strive to publish quality metadata including, where appropriate, information on transparency, accuracy, relevance, timeliness, consistency and comparability.”* Data quality at EEA covers also implementation of quality rules set up by the thematic experts.

3 QUALITY STANDARDS AND PRINCIPLES

3.1 Introduction

Data quality at the EEA is based on international standards and principles, for example:

- The standards of the International Organization for Standardization (ISO) and the Open Geospatial Consortium (OGC);
- The principles of the European Statistics Code of Practice applicable to an EU body;
- The INSPIRE specifications (Implementing Rules and Technical Guidelines).

The standards and principles are respected in EEA's data management within the boundaries of the EEA's and Eionet's responsibility. The responsibility for quality of data acquired from other sources to the EEA remains with the data providers. The relevance of the data collections are determined in the reporting obligations defined by European legislation and international conventions, or in the EEA work programmes.

The definitions of the quality terminology used by the EEA are based on ISO standards and the European Statistical System (ESS) quality glossary available through the Eurostat's Concepts and Definitions Database.

The EEA respects the UN Fundamental Principles of Official Statistics from 2014. The 10 UN principles set the framework of statistical work especially concerning ethics, openness to the public and sound methodology.

3.2 Code of good practice

While the EEA is not a member of the European Statistical System (ESS) it follows, where applicable, the principles and guidelines of the ESS. Two ESS documents are of special importance for the data quality at EEA; the European Statistics Code of Good Practice and the Quality Assurance Framework of the European Statistical System.

The EEA respects the 15 principles of the Code of Good Practice where applicable for an EU body for work on European level data. Many of the principles of the Code of Good Practice are addressed to the national statistical organisations and hence not valid for the EEA. The most relevant principles for EEA data quality are number 4 (Commitment to quality) and the principles covering statistical outputs (11-15):

Principle 11: Relevance

- European statistics meet the needs of the user

Principle 12: Accuracy and reliability

- *European Statistics accurately and reliably portray reality.*

Principle 13: Timeliness and punctuality

- *European Statistics are released in a timely and punctual manner.*

Principle 14 Coherence and comparability

- *European Statistics are consistent internally, over time and comparable between regions and countries; it is possible to combine and make joint use of related data from different sources.*

Principle 15 Accessibility and clarity

- *European statistics are presented in a clear and understandable form, released in a suitable and convenient manner, available and accessible on an impartial basis with supporting metadata and guidance.*

Also the four principles of the European Statistics Code of Practice for statistical processing (7: *sound methodology*, 8: *appropriate statistical procedures*, 9: *non-excessive burden on respondents*, and 10 *cost effectiveness*) are of highly relevant albeit the focus is more on national statistical offices.

The Quality Assurance Framework of the European Statistical System gives practical guidance on how to implement these quality principles. The EEA uses the Quality Assurance Framework to check that its quality procedures are adequate and in line with the above mentioned principles.

3.3 *Data quality standards in EU environmental data directives*

Many of the data flows managed by EEA are regulated by obligations of EU/EEA member countries to report data by EU legislation and/or international conventions. These define reporting details and schedules and in some cases detailed quality assessment rules. These rules are then translated into a machine logic of QA/QC rules that the data providers have to comply with.

The Inspire directive established an *Infrastructure for Spatial Information in the European Community*, including the quality aspects. The EEA is involved in the implementation of Inspire while the EC's Joint Research Centre is responsible for overall technical co-ordination, including developing specifications for metadata, spatial data and spatial data services.

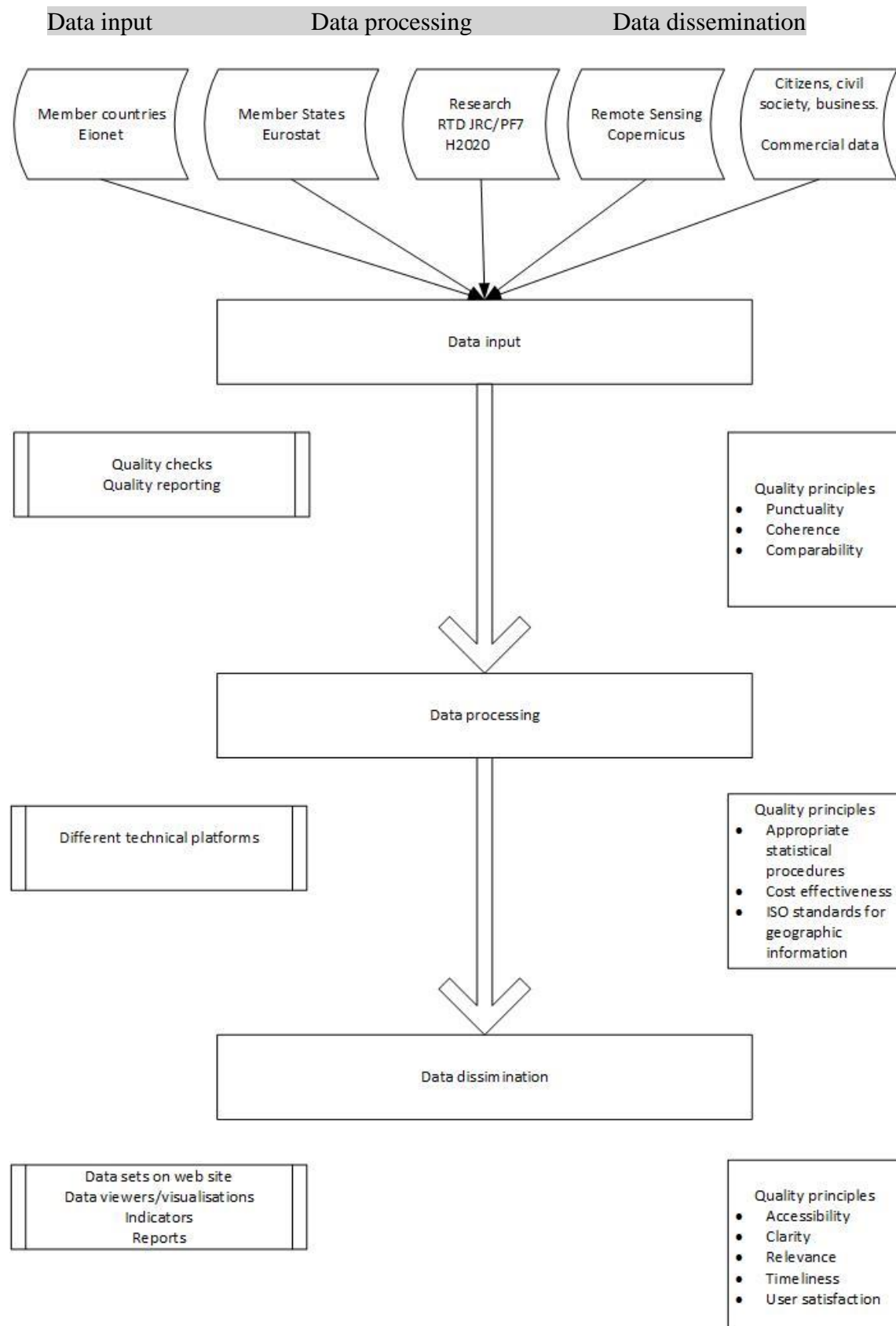
An analysis of data quality issues that had been addressed during the INSPIRE data specifications development with a view of interoperability was made in a special technical report of the EC JRC. In INSPIRE data specifications, the data quality elements, sub-elements and their recommended measures were defined with a view to:

- Evaluate and document data quality properties and constraints of spatial objects;
- Evaluate and document data quality metadata elements of spatial data sets;
- Specify requirements or recommendations about the targeted data quality results applicable for data sets related to a specific data theme.

The data quality elements addressed in INSPIRE are based on ISO 19157 Data Quality standard. That standard defines the following data quality elements: completeness, logical consistency, positional accuracy, thematic accuracy and temporal quality.

4 DATA QUALITY MANAGEMENT

The three main processes of data management at the EEA:



4.1 Data input

The EEA manages more than 80 regular data flows from the EEA member and cooperating countries. The majority of the data flows are based on **EU legislation and international conventions** while some are based on **EEA own initiatives**, as decided and defined in the annual work programmes.

The legislation and conventions define the area and key elements of data reporting while the development of data, metadata and quality criteria are defined with all stakeholders, usually in expert groups and/or the meetings of the Eionet national reference centres in each thematic area.

The national organisations that have the **data reporter** role in Eionet data flows are appointed at national level. The data reporter use the Reportnet suits of tools for the data reporting. A good overview of stakeholders and the elements of the Eionet data flows is given in the paper EEA (2008) *Reportnet for beginners*.

The stakeholders agree on common data structure, file formats (e.g. XML) and metadata. The data deliveries are delivered into the data repositories of Reportnet. Automatic quality assurance (QA) is in place to monitor punctuality and completeness. The automatic QA also implements a set of basic content related quality rules, to which countries' data deliveries have to comply with to allow a first entry into the processing by EEA. In this way part of the responsibility for the data quality is kept with the data provider. EEA does not accept data that do not comply with the minimum standards.

A **data quality officer** carries out quality checks following defined quality procedures that are part of the agency-wide Quality Management System. The quality checks at this process stage are compiled into the annual quality report. The quality report is published and accessible for the public on the EEA web site. The quality report gives an overview of basic quality of data by member country.

For the **EEA own initiative data flows** the quality criteria are determined with the stakeholders. EEA has a lead role in establishing the quality criteria and the technical formats and processes.

4.2 Data processing

Apart from data being collected from EEA member countries (Eionet data flows), EEA acquires data from various other sources to combine with the Eionet data to develop value-added products by data processing. The Eionet data are combined with data from Eurostat, research projects, remote sensing businesses (and in some cases citizens) to produce aggregated European data sets. While some data processing is done by staff with support of external consultants, the ETCs are the main **data processors**.

The roles of the EEA staff, ETCs and consultants are described in the **quality procedure** for each data processing line. The procedures also define the various technical tools used for the various processes. In the context of the data quality framework and the follow-up action

plan these quality procedures will be further developed, harmonised, agreed and updated within EEA as well as with external partners, contractors and ETCs.

For the purpose of increased efficiency and higher quality the EEA is implementing a *Common workspace* for data processing by staff, consultants and ETCs, with clearly regulated access for each contributors. The implementation of the Common workspace will provide a shared technical platform with homogeneous data quality metrics.

See further under 6 (Metadata)

4.3 Data dissemination

The processed data sets are published on the web sites of the EEA. All data sets must have a quality statement as part of the published metadata. The quality statement covers for example accuracy, comparability, timeliness, etc. Background documents and links to underlying legislation are available at the web site. The design follows current best practice for accessibility. Most data sets are made available in appropriate **open formats** (for example XML, and for spatial data, GML) or other widely used formats that facilitate further processing by users.

The results of the data input and data processing, i.e. the European data sets, are open and directly accessible on the EEA web sites. Those data sets are used by the general public, the national bodies that exported the national data for comparison and benchmarking, the European Commission, EUROSTAT, and other organisations. The data sets are documented with the appropriate metadata, for example: INSPIRE metadata and the Dublin core.

The EEA also provides access to some datasets as **Linked data/RDF** and geospatial data through **web services**. Periodical QA check will be established for these services. With the development of the national infrastructures for spatial information according to the INSPIRE Directive, the future discovery, access and use of geospatial data is expected to be based even more on web services. Web services and Linked data will then complement the Reportnet based data input described above.

See further under 6 (Metadata)

5 DATA QUALITY GOVERNANCE

5.1 Organisational structure and roles

Since 1 January 2015 the EEA is organised to give stronger focus on quality management in general and in particular on data quality management. The **overall quality management** is now overseen by a group in the Executive Director's Office (EDO). The ICT and Data Management Programme (IDM) brings together two IT groups that are responsible for the **ICT infrastructure** and for **ICT developments**, including tools to support data quality control and assurance, and two data groups. One focus on both horizontal **data processing support** and support in thematic areas while the other leads on **data management** frameworks and standardisation, with focus on Inspire.

While the thematic programmes have increased their expertise in data management and data quality assurance, the data processing group has also thematic expertise, thereby improving the communication between IT specialists and data quality experts across the organisation. The IAS report on data and information management has started a process that includes result oriented matrix discussions, better documentation and governance, and the development of an improvement roadmap.

As of 1 January 2016 the data quality governance will be further strengthened by establishing a role of an overall **data quality coordinator**, **data steward roles** in IDM and the thematic programmes and a **data curator role** in the ICT infrastructure group (Annex A).

Thematic experts for the various themes (e.g. for air or water) do content related quality checks for specific data flows. The data management group (IDM4) leads on overall quality assurance of the processed data, including data processed by ETCs or partners.

5.2 Quality Management System

The Quality Management System of the EEA was designed to provide access to all EEA procedures, both data quality procedures and other. The procedures covering data quality are used for quality assessments of data flows and are developed and used by the EEA thematic data experts. The Quality Management System will continue to be the information platform for the data quality procedures.

5.3 Quality reporting

The EEA publishes the EIONET core data flows report annually, or according to the frequency of the respective data flow¹. This quality report summarizes the quality of around 1000 data deliveries from EIONET countries. The main quality criteria are punctuality, completeness and delivery format. The deliveries are evaluated against agreed quality targets. The publication of the evaluations by country encourages friendly competition for excellence.

The results of individual data quality checks are publicly available on Reportnet.

6 METADATA

The metadata and the quality criteria for the data flows of Reportnet are published on the EIONET web site. The metadata for the delivery of the data sets is defined by the EEA. The specific metadata for the environmental data is usually defined through the legal regulation

¹ In 2015 a new scheme of Eionet (country) core data flows, focusing more on the data used in EEA indicators and assessments and including some more legal data flows is under development with the EIONET (National Focal Points) to be endorsed by the EEA Management Board

and technical working groups of the stakeholders. The key data delivery metadata in Reportnet are **obligation identifier, spatial coverage, temporal coverage, release date**.

The EEA ensures when processing the data that data are made discoverable, accessible, understandable, and reusable.

The EEA follows the developments in the Data Catalogue Vocabulary (DCAT) initiative that is aiming for the better interoperability between data catalogues. The aim is to create better machine-readable metadata of data sets through the use of common vocabulary.

The INSPIRE Implementing Rules on the interoperability of spatial data sets and services require metadata elements for interoperability which include data quality element logical consistency – topological consistency in the case of using network models. In addition, several INSPIRE Data Specifications Technical Guidelines include recommended metadata for data quality elements (e.g. logical consistency - conceptual consistency and domain consistency).

The metadata for INSPIRE was defined in detail by the Commission Regulation (EC) No 1205/2008.

INSPIRE defines also the network of services and spatial data services as part of the infrastructure for spatial information. The requirements considering the quality of INSPIRE services are defined in the INSPIRE Implementing Rules and described in details in the corresponding Technical Guidelines (e.g. criteria for the quality of INSPIRE download service include performance, capacity and availability).

COPERNICUS land services will deliver metadata for spatial data sets and services that is compliant with INSPIRE.

The spatial data infrastructure in the EEA (EEA-SDI) includes a metadata catalogue for spatial data sets with required INSPIRE discovery service functionalities. Metadata profile is based on the INSPIRE Metadata specifications (Regulation and Technical Guidelines) and extended with the metadata elements from ISO 19115 Metadata and ISO 19139 Metadata - XML schema implementation standards.

The EEA provides also another way of using metadata and data through the EEA semantic service which provides a search engine for the content of data in Eionet.

Metadata for different products, such as maps, charts and spatial data sets or services, shall be clearly documented and cover traceability of the underlying data sources. The different metadata profiles and standards that are used for different products shall be documented. Whenever a metadata profile for a product includes the same content as another metadata profile for a related product the content should be transformed automatically to avoid redundant writing.

In particular, the transformation between different metadata profiles and standards would improve the traceability and optimize the process of metadata generation and management.

7 CONTINUAL QUALITY IMPROVEMENT

The EEA is committed to continual quality improvement following the principles of ISO 9001 on quality management. The measures taken to improve data quality are embedded in the wider measures of quality management in the EEA. Part of the Data Quality Framework is a roadmap of tasks to improve data quality.

8 DOCUMENT LIFECYCLE AND VERSIONS

The Data Quality Framework is checked and updated at least once a year by the data quality coordinator. Procedures and technical developments should be updated immediately when changes take place.

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<http://ec.europa.eu/eurostat/web/quality>
- INSPIRE information at <http://inspire.ec.europa.eu/index.cfm>
- INSPIRE Metadata Implementing Rules: Technical Guidelines based on EN ISO 19115 and EN ISO 19119
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10 ANNEXES

Annex A: ICT and data management (including data quality) roles and responsibilities

Roles Green: Already covered Yellow: To be introduced	Description	Group/Lead staff
Data quality coordinator	Overall coordination of data quality at EEA. EEA spokesperson and contact point for other organisations.	EDO1/tbd
Data quality manager – data dissemination	Quality coordination of data dissemination. Geospatial data, Inspire and Copernicus expertise.	IDM4/Stefan
Data quality manager – Eionet data collection	Quality coordination of data flows making use of Reportnet	IDM0/Hermann
Data quality technology	Quality control in data processing. IT tools for quality improvements	IDM2/Søren IDM3/Jan
Data stewards	Quality management responsibility for each data flow and data set.	Staff within IDM and the content programmes.
Quality manager	Overall coordination of quality management at EEA including maintenance of the Quality Management System (QMS) holding or referring to all quality procedures.	EDO1/Sigfús/tbd
Data curators	Overall responsibility for data curating/archiving. Overseeing the long term availability or disposal of data and the long-term data safety	IDM1/tbd
ICT security officer	Overall coordination of ICT security practices. Overseeing the IT security aspects of the Agency's day-to-day activities.	tbd
ICT Steering Committee chair	Lead of the ICT Steering Committee	EDO/Philipp
IT product owner	Shared responsibilities with IDM related to the full life cycle of each IT product	Staff in all programmes (see list on intranet – to be updated)
IT system owner	Shared responsibilities with product owner related to the full life cycle of each product	IDM (see list on intranet – to be updated)

The new roles for data quality are:

Data quality coordinator

This role acts as a coordinator and spokesperson for data quality management in the EEA. He is the spokesperson for data quality both internally as well as externally. The role ensures that the Data Quality Framework is regularly updated and the action plan is revised annually. The person ensures that data quality tasks find the right place and resources in the Annual Work Programme. The role coordinates the annual data quality reports. The person should investigate technical possibilities with IDM for improving data quality (software, Master Data Management concepts).

Data stewards

The data steward role has a similar concept like the Information and Data Product Owner that the EEA introduced in 2015. The data steward is someone who looks after a particular data collection or data flow. Special attention should be paid to the quality of the data. The data steward owns the specific quality procedures in EEA's Quality Management System. The data steward role does not create new tasks but formalises existing best practice. The data steward role can, but does not have to, be linked to the Product Owner role. The Product Owner role focuses on the IT related aspects of a data flow while the Data Steward role focuses more on quality aspects:

- Looks after a particular data flow or data set
- Ensures that quality procedures are in place
- Checks the compliance with legislation and EEA regulations
- Defines the security restrictions
- Controls the metadata
- Manages the reference data (creation, updates, retirement)
- Ensures that manuals and training are available for the data users
- Takes part in overall coordination of data quality and EEA's quality management system
- Points out quality improvement possibilities
- Coordinates with IDM technological improvements

Data curator

Data archiving, data conservation or digital preservation can be used synonymously with data curation. The person checks legal and regulatory compliance for the availability, storage or disposal of data. The person establishes an overview of the data lifecycles and scheduled actions. The Data Curator ensures that data is stored in the long term fulfilling safety and security requirements. The Data Curator coordinates the technical accessibility of long term data with the technical specialists of IDM.

Annex B: Roadmap implementation

Objective

- Data quality assurance of all data provided by the EEA. Full traceability for all published data.
- Data quality statements for each data set (similar to Eurostat's quality reporting)
- Improvements of data quality especially outside the established data flows

Organisation

- Organisation and roles. Clear communication who is responsible for what. Data quality circle where data quality issues are discussed and linked to the QM group in EDO1.
- Data flow owner/ data steward in analogy of the IT product owner. Including quality responsibility
- Data quality coordinator role
- Coordination between Data Quality Management and the overall Quality Management of the EEA.
- Regular meetings of an open, matrix quality circle for information exchange. This can be linked to the overall quality management coordinated by EDO1
- Annual revision of data quality procedures
- Intranet corner for information / discussion on data quality
- Training

Technology

- Assessment of technical possibilities for improved automated quality assurance including Master Data Management
- XML as preferred data format in Reportnet. Promote use of XML with EIONET member countries. Inform the partners about data quality requirements, formats and improvement potential. The XML format is necessary for automatized quality checks and better overviews of data quality for each delivery in Reportnet.

Other actions

- User analysis of data products, user satisfaction, user needs, etc.
- Quality grading system (see Eurostat's grading system for e.g. comparability, accuracy)