

## TENDER SPECIFICATIONS

**Reference:** OC/EFSA/SCER/2017/02

**Subject:** Research project on field data collection for honey bee colony model evaluation

**Procurement procedure:** Open call

**Project/Process code:** P-SCER-01

**Tender specifications purpose:**

1. specify what EFSA is to buy under the contract resulting from this tender procedure
2. announce the criteria which EFSA will apply to determine the successful contractor among the offers received
3. guide tenderers to establish and dispatch their offer in the required form and time

These tender specifications will form annex 1 of the contract resulting from this tender procedure and will be binding during the contract implementation.

**Additional guidance:**

The economic operators wishing to submit an offer following this call for tenders are also invited to read the [EFSA Guidance for tenderers](#) available at EFSA website. The general guidance aims to assist the potential tenderers in their understanding of EFSA procurement procedures and to complete the specific information contained in this tender specifications.

**Submitting your tender on time:**

Follow carefully the guidance in annex 2 "E-Submission quick reference guide for economic operators".

Do not wait until the last day to upload your offer. Responsibility rests with you to ensure that your tender is fully, completely and correctly uploaded before the time limit for receipt. Failure to respect the time limit for receipt will result in the rejection of your offer for non-compliance with the deadline for tenders.

Please note that offers sent via e-mail will be rejected.

**Provide EFSA with feedback:**

If you considered applying to this call for tenders but finally decided not to do so, your feedback and reasoning for such a decision would be very much appreciated. You should address your feedback to [EFSAProcurement@efsa.europa.eu](mailto:EFSAProcurement@efsa.europa.eu). Please note that your comments will be kept strictly confidential and will only be used for the purpose of improving future EFSA procurement calls.

## INDICATIVE PROCEDURE TIMETABLE

Milestone	Date <sup>1</sup>	Comments
Launch date	24/07/2017	Date of publication being sent to OJ
Deadline for sending a request for clarification to EFSA	20/10/2017	<b>Attention:</b> <i>Requests for clarification may only be submitted through the eTendering website as described in the Invitation Letter.</i>
"Receipt Time Limit" - Closing date and time for offers reception	<b>30/10/2017 at 14:30 (CET)<sup>2</sup></b>	See details in the Invitation letter. Please also refer to part 3 of the tender specifications "How to submit your offer – e-Submission application guide" and the e-Submission quick reference guide for economic operators, link provided in annex 2.
Opening session	31/10/2017	14:30hr, EFSA premises, Parma
Notification of the evaluation results	NOVEMBER 2017	Estimated. <b>Attention: outcome of the present procurement procedure will be communicated to all tenderers to the e-mail address indicated in their offer. Accordingly, the tenderers who have submitted offers under the present call are strongly invited to check regularly the inbox in question.</b>
Contract signature	NOVEMBER 2017	Estimated

<sup>1</sup> All times are in the time zone of the country of the EFSA.

<sup>2</sup> **Do not wait until the last day to upload your offer. Responsibility rests with you to ensure that your tender is fully, completely and correctly uploaded before the time limit for receipt. Failure to respect the time limit for receipt will result in the rejection of your offer for non-compliance with the deadline for tenders.**

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## **PART 1 TECHNICAL SPECIFICATIONS - WHAT DOES EFSA NEED TO BUY THROUGH THIS PROCUREMENT PROCEDURE?**

### **1.1 BACKGROUND**

#### **EFSA strategy 2020**

"Prepare for future risk assessment challenges", is the 4<sup>th</sup> strategic objective of EFSA Strategy 2020. This procurement on "field data collection for honey bee colony model evaluation" will make a significant contribution to meeting this strategic objective. Indeed, the model is addressing the future challenge of the risk assessment of multiples stressors in honeybee colonies at the landscape level.

#### **EFSA project MUST-B**

In 2015, EFSA initiated a large project, **MUST-B** (EU efforts towards the development of a holistic approach for the risk assessment on **M**ultiple **S**tressors in **B**ees). The objective of this project is to bring together all available expertise and knowledge in the area of bee health and risk assessment to develop such an approach. To this end, a Working Group (MUST-B WG) of the Scientific Committee (SC) was established to develop a framework incorporating modelling, experimental and field-monitoring approaches. These complementary approaches are being combined to extrapolate risks from individual to colony levels, to assess the complexity of co-exposures from multiple stressors coming from both the hive environment and the landscape, and to determine their relative contribution to colony losses and weakening.

A first technical report outlined specifications for the development of a honey bee colony model, drawing extensively on expert knowledge and a detailed understanding of current published information (EFSA, 2016)<sup>3</sup>. A procurement was launched to outsource the development of the model (OC/EFSA/SCER/2016/03)<sup>4</sup> and this work is currently under development by the selected Contractor following that call for tenders.

In the early phases of modelling development, model evaluation will be conducted, utilising published data, *ad hoc* data and bee expert knowledge. Model structure and parameters will be revised when new data from the literature and results from the model evaluation become available. When the resulting computer model (see Appendix B in EFSA PPR Panel, 2014)<sup>5</sup> proves satisfactory based on available literature data, the evaluation will be expanded to include the performance of the model under realistic field conditions. For this purpose, field data collected under controlled conditions, which can be replicated within the model, is required. It is envisaged that the model may be used as an exploratory tool for regulatory risk assessment purposes, and also to better understand the (relative) risks and impacts of multiple stressors on honey bee colonies, including the overall complexity of interactions. The model is intended to be used to aid setting protection goals and toxicity thresholds for pesticides, clarify the relative importance of different stressors to the system and answer systems-level exploratory questions (e.g. how does the impact of a pesticide on colony health change with changing climate). Before the model can be used for regulatory purposes, it will need to be evaluated with respects to its intended use. The evaluation depends on high quality field data, representative of situations where the model is expected to be applied. Honey bee colonies and their interactions with the environment form complex systems. The model needs to be corroborated and verified using a number of instances of these

3 <http://onlinelibrary.wiley.com/doi/10.2903/sp.efsa.2016.EN-1069/epdf>

4 <https://etendering.ted.europa.eu/document/document-file-download.html?docFileId=23422>

5 <http://onlinelibrary.wiley.com/doi/10.2903/j.efsa.2014.3589/epdf>

complex systems. The model should fit not just a single metric of these systems but multiple metrics in time, in parallel, thus demonstrating both system behaviour and the mechanisms behind generation of that behaviour.

A second technical report outlined the specifications for a research project on field data collection, contributing to the corroboration and verification of the above model ([EFSA, 2017](#))<sup>6</sup>. The actions to be financed by EFSA following the award of the present procurement procedure are specifically on this field data collection contributing to model corroboration and verification. The specifications of this data collection are described below and more extensively in [EFSA, 2017](#)<sup>6</sup>. Therefore, tenderers should pay particular attention to this reference document when addressing the requested specifications and applying to this call for Tenders.

The present Call is based on the Final work programme for grants and operational procurements 2017 as presented in Annex IX of the EFSA Programming Document 2017 – 2019, available on the EFSA's website<sup>7</sup>.

## 1.2 OBJECTIVES

The aim of this procurement procedure is to conclude a framework contract for 3 years. The framework contract will be implemented through specific contracts or order forms. Each time the framework contractor responds to a call under the framework contract, a specific contract or order form will have to be concluded between EFSA and the framework contractor. The specific contract or order form will set out the specific conditions for performing the individual assignment.

### **Overall objective:**

The overall objective of this procurement is to collect data from honey bee colonies across a range of landscapes, including (i) two of the three regulatory zones of Europe to assess functionality over a number of geographically different environments representing the EU regulatory zones as defined by EC, 2009<sup>8</sup>; (ii) sites of high and low landscape fitness<sup>9</sup>, to evaluate performance in resource-stressed and -non-stressed colonies, and (iii) sites of high and low pesticide exposure<sup>10</sup>, to evaluate model performance in response to exposure of bees to varying general levels of pesticide use.

In one of the regulatory zones, there will be 4 sites; two with low landscape fitness and two with high landscape fitness. In addition, spray will be applied to one of the sites with low landscape fitness and to one of the sites with high fitness landscape. In the other regulatory zone, there will be 2 sites; one with low landscape fitness and one with high landscape fitness and both sites will be in an area of low pesticides exposure (e.g. organic farming) (see Figure 3 of [EFSA, 2017](#))<sup>6</sup>.

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6 <http://onlinelibrary.wiley.com/doi/10.2903/sp.efsa.2017.EN-1234/pdf>

7 [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/amp1719.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/amp1719.pdf)

8 EC (European Commission), 2009. Regulation (EC) No 1107/2009 of 21 October 2009 of the European Parliament and of the Council concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC. OJ No L 309, 24.11.2009.

9 Landscape fitness is related to the diversity, volume and continuity of nectar and pollen resource within 5 km radius of the location of the colony. A 'High landscape fitness' is a landscape within 5 km radius of the location of the colony with a high diversity of pollen, a high sugar content in nectar and a high quantity and good continuity of nectar and pollen resource. A 'Low landscape fitness' is a landscape within 5 km radius of the location of the colony with a low diversity of pollen, a low sugar content in nectar, and a low quantity and a poor continuity of nectar and pollen resource. However, the low landscape fitness should be sustainable for the colonies development and reproduction.

10 High pesticide exposure': experimental treatments with spray application on 3 oilseed rape fields during the flowering of the crop to cause about 25% mortality of adult bees (sum of foragers and in-hive bees) on the day after application. 'Low pesticide exposure': no experimental treatment and as little treatment with pesticides with high bee toxicity as possible by farmers in the Resource providing unit (preferably no treatment with pesticides, e.g. by selecting areas with organic farming).

**Specific objectives:**

The contract resulting from the present procurement procedure is organised in two phases and several work packages (WPs). The first phase relates to the preparatory work to be done in 2018 and the second phase to the field data collection/collation/reporting to be conducted in 2019 and 2020 (Table 1). Some activities belonging to phase 1 can be extend in Q1 2019 (e.g. training) and similarly some activities belonging to phase 2 may be started earlier, i.e. in Q4 2018 (e.g. information related to agricultural practices) (Table 1).

This overall timing is aligned to the timing of the model development.

**Table 1.** Timing of the two phases of the project.

Phases	2018	2019	2020
1. Preparatory work			
2. Field data collection, analyses and reporting		W1 + SS1	W2 + SS2

W: winter sampling; SS: spring/summer sampling

The first phase includes 6 WPs (WP 1.1-1.6) and the second phase includes 7 WPs (WP 2.1-2.7) as follows:

- Database and field/lab forms (**WP 1.1**) - continued in phase 2,
- Sites selection (**WP 1.2**),
- Sister queens rearing and start of colonies (**WP 1.3**),
- Field protocols finalisation (**WP 1.4**),
- Field operators training (**WP 1.5**) and,
- Colonies setting (**WP 1.6**),
- Agricultural practices and land use, cover and structure (**WP 2.1**),
- Local weather and in-hive conditions (**WP 2.2**),
- Hive management and colony observations (**WP 2.3**),
- Identification and prevalence of infectious agents (**WP 2.4**),
- Quantification of chemical residues in crops, bees and hives (**WP 2.5**),
- Sugar concentration in nectar and floral origin of pollen (**WP 2.6**),
- Data collation and reporting (**WP 2.7**).

Overall, a strong coordination to facilitate consistent data collection both in the field between study sites and participating countries, and between farmers, the field operators and participating laboratories is required. In addition regular liaison with EFSA and the MUST-B WG, acting as a steering committee, to provide updates on the progress will be critical. Moreover, a close collaboration between the awarded contractor and the team developing the model will be required, in particular for WP 1.1 to ensure that field data collection is timely and entirely fit-for-purpose. The flow of data to the model developers will need to be quick and efficient.

In the offer, the tenderer will need to describe how the above aspects with all involved parties (i.e. the team developing the model, the farmers, the laboratories, the field operators and EFSA) will be guaranteed.

Finally, an indicative timeline of the different WPs is provided below for each WP and summarised in Tables 2 & 3. However, in the offer, the tenderer can make other suggestions with justifications. The final timelines will be specified in the respective specific contracts, in agreement with EFSA (see Table 3).

**WP 1.1: Database and field/lab forms**

The data collected in the field and laboratory results must be stored in a database which

implements the agreed MUST-B data model (see Appendix A in [EFSA, 2017](#))<sup>6</sup>. This preliminary data model will be cross-checked by the team developing the model to ensure that no key variables to be monitored are missing.

The database design should focus on minimising manual data entry. This would require mapping and import routines from laboratory information management systems. Import routines should also be developed for all electronic monitoring systems (e.g. hive scales, weather stations). Online electronic forms should be developed to capture in-field observations.

Unique identifiers should be assigned to all records and entities in the surveys. These must be maintained. The relationships between the entities must be managed by the database.

All terminologies must be defined during the preparatory phase and [EFSA terminologies](#)<sup>11</sup> plus the [Global Agricultural Concept Scheme](#)<sup>12</sup> should be used as the primary sources for the development of these terminologies.

The business rules for the validation of the data must also be described during the preparatory phase; these will also be implemented in the [EFSA Data Collection Framework \(DCF\)](#)<sup>13</sup> to ensure that a sufficient data quality standard is met. The syntax for business rules is described in the [Guidance on Data Exchange version 2.0](#)<sup>14</sup> and example of business rules used for residue monitoring can be [downloaded](#)<sup>15</sup>.

Data reporting guidelines must be prepared and shared with all participants in the survey. Specific training on reporting data should also be provided.

The data should be submitted to the [EFSA DCF](#)<sup>13</sup> in XML format, a test dataset should be submitted and must be "VALID" according to all system checks prior to starting the survey.

The process for amending data in case of validation failures must be defined and documented.

A data manager should be nominated for the project to oversee all data management processes and all communication with EFSA in case of data quality issues.

Field and lab forms should be made for the following data/information to be collected:

- **Pesticides application** (Table A.1 in [EFSA, 2017](#))<sup>6</sup>: this table and associated field forms on agricultural practice and land use are to be used for reporting any pesticide applications included in the survey design. In addition, the pesticide application information could also be collected from farms within the study location perimeters.
- **Land cover and structure and landscape fitness** (Table A.2 in [EFSA, 2017](#))<sup>6</sup>: this table and associated field forms are to be used for reporting the results of the botanical survey in the area surrounding the study site.
- **Hive measurements** (Table A.3 in [EFSA, 2017](#))<sup>6</sup>: this table is the master list of all hives/colonies included in the study. The correct 'hiveNo' should be selected when reporting observations for a hive/colony in the 'Colony management', 'Colony observations' and 'Laboratory analyses' tables (i.e. Tables A4, A5 & A6).
- **Colony management** (Table A.4 in [EFSA, 2017](#))<sup>6</sup>: this table and associated

11 <https://zenodo.org/record/344473#.WWytOIWGODJ>

12 <http://browser.agrisemantics.org/gacs/en/>

13 <http://www.efsa.europa.eu/en/data/toolbox>

14 <http://onlinelibrary.wiley.com/doi/10.2903/j.efsa.2014.3945/epdf>

15 <https://zenodo.org/record/570860#.WWyq9VWGODJ>

field forms should be used by the person in charge of maintaining the hives for the duration of the study. It is designed to be a diary, which can be completed whenever the hive is visited. General observations and inputs such as 'supplementary feed' or 'varroa treatment' and outputs such as 'honey collection' or 'removal of bees' should be reported, along with the relevant dates.

- **Colony inspections** (Table A.5 in [EFSA, 2017](#))<sup>6</sup>: this table and associated field forms collect the information obtained during the fortnightly inspections. It is expected that all of the observations listed in 'paramText' are taken at every observation. The results of samples taken for laboratory analysis should be reported in the 'Laboratory analysis' table (Table A.6). If in-hive monitors are used, then the outputs from these instruments should also be stored. Since the same brand of in-hive monitors should be used at all study locations, measurements such as forager flux or internal hive temperature should be taken directly from the instrument outputs.
- **SSD2 laboratory analyses** (Table A.6 in [EFSA, 2017](#))<sup>6</sup>: this table includes all results from laboratory analyses (infectious agents, chemical residues, sugar concentrations and pollen identification), including negative results and results below the limit of quantification (LoQ). Effort should be made to retrieve this information automatically from the Laboratory Information Management Systems (LIMS) to reduce translation and manual data entry errors.
- **Observation hives** (Table A.7 in [EFSA, 2017](#))<sup>6</sup>: this table and associated field forms collect information from an observation hive (i.e. a small colony with a single frame) on the waggle-dance of the bees to determine foraging locations/resources<sup>16</sup>. This data is essential to evaluate the foraging performance of the model.

The tenderer will explain in detail the data management process (from field/lab data collection and reporting to data collation and analysis in the repository).

#### *Timing:*

This work will be initiated in early 2018 and developed all through the year 2018 to include implementations from WP 1.4 and a testing phase with EFSA DCF will be made in Q4 2018 (see WP 2.7 and Table 2).

### **WP 1.2: Sites selection**

Offers should select sites from at least 2 out of the 3 EU regulatory zones, in accordance with the specifications described on pages 10-11 of the previous EFSA call for the model development (i.e. [OC/EFSA/SCER/2016/03](#)<sup>4</sup>: "The awarded contractor will need to determine where spatial explicit GIS/environmental data are most optimal in countries/areas within three EU regulatory zones. Targeted data collection will be preferably conducted in these countries/areas on a subsequent separate procurement procedure. These data will be further used by the awarded contractor to evaluate the performance of the model under the three EU regulatory zones").

At this stage of the model development, the awarded contractor for the model development is developing protocols for GIS maps in Denmark, Portugal and Poland. Therefore, the tenderer will need to select at least 2 of these 3 countries to conduct the field data collection.

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<sup>16</sup> Visscher KP and Seeley TD, 1982. Foraging strategy of honey bee colonies in a temperate deciduous forest. *Ecology*, 63, 1790-1801. DOI: 10.2307/1940121

The selection of the specific sites within each selected country will follow the requirements described in Section 3.3 of the EFSA technical report ([EFSA, 2017](#))<sup>6</sup>, for distance between sites, for oilseed crop field coverage, landscape fitness and pesticide exposure. The location and identification of the study sites, apiaries and hives, colony type, i.e. subspecies and initial size at the start of the data collection will be compiled in Table A.3 of [EFSA, 2017](#)<sup>6</sup>.

In the offer, the tenderer will clearly determine the selected countries where the data collection should be conducted and the country in which the spray application will be conducted. In addition, the tenderer will make a suggestion on the specific locations (areas within each selected countries) where the colonies could be installed for the data collection.

#### *Timing:*

The confirmation of the specific locations should be agreed with EFSA by Q1 2018 (Table 2).

### **WP 1.3: Sister queens rearing and start of colonies**

To reduce variability due to genetic differences between colonies, the rearing and use of sets of sister queens of *Apis mellifera mellifera* in Denmark, *A. m. carnica* or *A. m. mellifera* in Poland and *A. m. iberiensis* in Portugal is required (see Section 3.2 in [EFSA, 2017](#))<sup>6</sup>. The MUST-B WG recommended a confirmation of the subspecies with molecular markers, but considering the budget constraints, EFSA will not ask for such analyses. All information related to the queens will be reported in table A.3.

The colonies will be ready for the field data collection once the first generation of workers has been produced from these queens. A total of 30 colonies are required for the field data collection (5 colonies per site and total of 6 sites) and a stock of 25-30 sister queen colonies should be reared and maintained to replace any colony which may die in the course of the project (see p31 in Section 5.3 of [EFSA, 2017](#))<sup>6</sup>.

In the offer, the tenderer will need to determine how they can guarantee the origin of the subspecies they use (e.g. by a certification of the queen breeder or other means).

#### *Timing:*

Sister queens will be reared in Q2-Q3, depending on the climatic zone, followed by the start of the colonies (Table 2).

### **WP 1.4: Field protocols finalisation**

Some of the protocols, methods and/or tools suggested by the MUST-B WG were not yet fully available at the time of the completion of the work of the WG. Prior to the actual data collection, in 2018, these protocols, methods and/or tools will need to be tested and fine-tuned to the needs of the project as follows:

- (i) The use of **observation hives** to confirm the landscape fitness and to determine the bee foraging distance and location (See Section 3.3.2 in [EFSA, 2017](#))<sup>6</sup>. For these observation hives, a protocol needs to be designed and tested in 2018 to define the various parameters to be recorded.
- (ii) The use of **programmable video camera** and image analysis software to assess

foraging rate and forager mortality during and after the flowering period of oilseed rape at all sites. The WG recommended that at each apiary, a minimum of 2 colonies are equipped with a camera.

- (iii) The use of **scales** *versus* the use of **image analysis** to determine the **number of adult in-hive bees** (see Section 4.3.4 in [EFSA, 2017](#)<sup>6</sup> and/or Table C.10 in [EFSA AHAW Panel \(2016\)](#)<sup>17</sup>).
- (iv) The use of **image analysis and automatic recognition** software *versus* the use of **ellipses** to determine brood development (see Section 4.3.4 in [EFSA, 2017](#)<sup>6</sup> and Table C.9 in [EFSA AHAW Panel \(2016\)](#)<sup>17</sup> respectively).

When protocols are finalised, field forms and database should be reviewed with the new collected information/results (WP 1.1).

In the offer, the tenderer will make a proposal for a protocol for (i) and justify the selected methods and tools for (ii-iv) by exploring recent advances made on those tools or alternatively by describing a protocol to test them in 2018.

#### *Timing:*

The above work should start in Q1 2018 and be completed by early Q3.

### **WP 1.5: Field operators training**

Field operators need to be trained to conduct standardized and consistent data collection within and between sites. This task is under the responsibility of the team coordinating the field data collection.

Standardisation is required for data collection, collation and reporting on:

- beekeeping practices (e.g. same type of supplementary feeding to be provided to colonies; type and date of treatment against *Varroa* to be systematically reported in the beekeeping form; some beekeeping practices like changing number of workers, replacing combs with brood of feed sources and swarming to be prevented; a water source to be placed close to the hives; etc.),
- colony observations (e.g. protocols to identify clinical signs, to determine foraging distance/location with observation hives, to assess foraging rate/mortality, number of in-hive bees, brood development and food stores) and,
- botanical surveys.

In the offer, the tenderer should determine in detail the programme for the training of the field operators (e.g. workplan, composition of the team, meetings, training material, etc.).

#### *Timing:*

This work should be initiated as soon as the protocols are finalised, early Q3 2018 and could extend over several months, i.e. until end of Q4 2018 or early Q1 2019 (Table 2).

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<sup>17</sup> <http://onlinelibrary.wiley.com/doi/10.2903/j.efsa.2016.4578/epdf>

## **WP 1.6: Colonies setting**

All colonies should be equipped with a scale (with T/H loggers) and at least 2 colonies per apiary should be equipped with a video camera (see WP 1.4 ii).

At each site, a weather station should be installed (some scales can also have loggers for outside weather measurements).

All colonies will be equipped with tools/systems of the same brand.

### *Timing:*

As soon as the sister queens are reared and the colonies started (see WP 1.3), the hives should be installed at the selected sites and equipped with all required monitoring devices, i.e. by early Q4 2018, at the latest, for the start of the first winter sampling (Table 2).

## **WP 2.1: Agricultural practices and land use, cover and structure**

On an annual basis, during the 2 years field collection, information will be required on **agricultural practices and land use**, i.e. type of farming, crop practices, chemical control of the crops and other pest control activities (e.g. synthetics pyrethroids on cattle against flies/flies). The awarded contractor should get the above information from either subsidy data or local farming advisors for the area of interest (i.e. at each apiary, in the resource providing unit, i.e. at least 3 km around the apiary).

At the beginning of the project, information will be required on the **land cover and structure**. Local mapping around the apiary will be undertaken to determine production of pollen and nectar, during the season, from weeds and non-agricultural habitats. This will be achieved by the modeller (under [OC/EFSA/SCER/2016/03](#)<sup>4</sup>) with GIS maps, but it will require verification by a botanist (under this procurement) with botanical surveys conducted within a radius of 1.5 km around the apiaries (see section 4.3.1 p24-25 of [EFSA, 2017](#)<sup>6</sup> for more details).

Therefore, within a circle of 1.5 km radius around the apiaries, each habitat patch distinguishable on a map (e.g. google earth) should be visited and plants that serve as pollen and/or nectar resources for honey bees should be registered as follows:

- Crop flowering and location (field identified);
- The amount of resources, i.e. flowering honey bee plants, within each habitat should be evaluated for herbs, bushes and trees. The plants to include in the survey can be determined from locally available sources. These sources should include information about the pollen and nectar quantity and quality with a focus on honey bees;
- For each herb and dwarf shrub species, the fraction of the habitat covered by flowering plants and the abundance of flowers within that area are estimated using three categories: 3 = the species covers at least 75% of the area and flowers are abundant; 2 = the species covers 25-75% of the area and flowers are abundant; and 1 = the species covers less than 25% and/or flowers are not abundant;
- For each shrub species, the size and number of shrubs flowering within the habitat are estimated using three categories: 3 = the shrub is large and abundant, 2 = the shrub is of intermediate size or small but abundant; 1 =

the shrub is small and not abundant;

- For each tree species, the size and number of trees within the habitat are estimated using three categories: 3 = the species is large and abundant, 2 = the species is of intermediate size or small but abundant; 1 = the species is small and not abundant;
- Using the indexes of flower abundance through the season and the information on resource type (pollen/nectar) each plant produces, the patch can be characterised as being a high, medium, low or no resource provider per unit area for each month of the season.

#### *Timing and frequency of surveys:*

Information on the crop practices can be collected the year before the data collection (Q4 2018). Botanical surveys will be conducted during the flowering period of the plants attractive to honey bees present at the sites, in year 1 and 2, i.e. from Q1-Q2 2019 until Q3-Q4 2020 (Table 2), depending on the geographic location (surveys will start earlier and finish later in the Southern EU zone than in the Northern zone). The frequency of the surveys will depend on the plants present at the sites.

The survey frequency should be checked for the selected sites with the botanists involved in the survey and agreed with EFSA.

### **WP 2.2: Local weather and in-hive conditions**

Weather conditions comprising air temperature, relative humidity, total precipitation, solar radiation (and wind direction during spray application) will be continuously recorded using on-site weather stations installed at each apiary. In addition, temperature and humidity in the hive will also be recorded (some hive scales are equipped with loggers measuring both inside and outside hive temperature/humidity).

#### *Timing and frequency:*

The weather conditions will be recorded continuously during the whole data collection period starting late Q4 2018 and ending in early Q4 2020 (Table 2).

### **WP 2.3: Hive management and colony observations**

- **Colony management:** beekeeping practices such as supplementary feeding, treatments and honey harvesting should be reported in Table A.4 of [EFSA, 2017](#)<sup>6</sup>. Swarming and other beekeeping practices should be avoided during the field data collection (as previously described in WP 1.5).
- **Colony measurements:** several colony endpoints as previously described in WP 1.4 (foraging rate/mortality, number of adult in-hive bees, brood development, colony size, honey production and beebread) should be assessed and reported in Tables A.3, A.5 & A.7.
- **Infectious agents:** at given times, the prevalence of *Varroa destructor*, Deformed Wing Virus (DWV), Acute Bee Paralysis Virus (ABPV), *Nosema* spp. will be determined by sampling bees for further laboratory analyses (see WP 2.4 for further details). In addition, if clinical signs from other infectious agents are

detected (e.g. Sacbrood Virus, the Chronic Bee Paralysis Virus, the Black Queen Cell Virus, the American and European foulbrood), this will be recorded during the fortnight colony visits, but it will not lead to any laboratory analysis.

*Timing and frequency:*

During winters W1 and W2, colonies will be visited twice (before and after wintering) and during the flowering periods SS1 and SS2, i.e. from spring to autumn (Table 1), colonies will be visited every 2 weeks. The hive management and colony observations will start in the first winter (Q4 2018) and finish after the 2 years of the data collection (Q3-Q4 2020).

**WP 2.4: Identification and prevalence of infectious agents**

Nosemosis analysis includes spore counting by microscopy visualisation (for quantification) and genotyping by PCR (for subspecies identification). DWV and ABPV quantification are conducted through real time PCR. The sampling protocol is fully described in Section 4.3.2 of [EFSA, 2017](#)<sup>6</sup>. The results of these analyses will be reported in Table A.5 & A.6.

*Timing and frequency:*

Bees will be sampled 3 times a year to determine the prevalence of *Varroa destructor* (early spring, August and October) and 2 times for *Nosema* spp. (early spring and late autumn) and DWV and ABPV (August and once in autumn/winter, one month after the Varroa treatment, or early spring to reduce colony disturbance). This sampling will be conducted in 2019 and repeated in 2020. In addition, the identification of the *Nosema* subspecies by PCR will be conducted once a year in 2019 and repeated in 2020.

**WP 2.5: Quantification of chemical residues in crops, bees and hives**

For the field data collection, at all sites (i.e. with and without experimental spray application), multi-residue measurements will be performed in bee matrices (in honey and beebread).

At the sites where spray is applied, the pesticides exposure and application conditions should follow the protocol provided in Section 3.4.1 of [EFSA \(2017\)](#)<sup>6</sup>. In summary, spray application is conducted on oilseed rape crops when crops are flowering and when bees forage. Spray is applied during BBCH principal grow stage 6 (ideally in the early phase of the flowering and when the weather is favourable for foraging, preferable in the morning hours, in dry and calm conditions). The spray applications should be conducted with flupyradifurone at the dose of 1 kg/ha ([EFSA, 2015](#))<sup>6</sup>. If the effects in the colonies are lower than intended (i.e. <25%), the spray application will be repeated one week later. Chemical residues analyses will be conducted in nectar/pollen from flowers in treated crops, in nectar/pollen carried by returning foragers and in honey and beebread stored in the hive.

The awarded framework contractor will need a pre-authorisation from the national competent authority for the research experiment on the spray treatment and pre-arrangement plans with the farmers having the fields where the treatment will be applied.

### *Sampling size, timing and frequency:*

Multi-residue measurements will be conducted at all sites and in all colonies (n=30) on honey and beebread taken from the cells in the hive. For each year, samples will be taken at 2 time points, i.e. at the start and at the end of the foraging season. This results in 60 samples of honey and 60 samples of beebread in 2019 and the same in 2020.

Mono-residue measurements will be conducted at the 2 sites where spray is applied (10 colonies):

- on flower samples taken on treated crops (48 samples of pollen and 48 samples of nectar from oilseed rape flowers in 2019 and repeated in 2020),
- on nectar and pollen samples taken from foraging bees (80 samples of nectar from honey bee sacks and 80 samples of pollen from honey bee baskets in 2019 and in 2020) and,
- on honey and beebread samples taken from the hive (50 samples of honey and 50 samples of beebread from cells in hives in 2019 and repeated in 2020).

The samples taken on crops and bees will be taken at four time points (at 3h and 4h after spraying for crops and bees, respectively, and thereafter, 1d, 3d and 5d after spray for both crops and bees). The samples taken in the hive will be taken at three time points (before the spray, 2 weeks after, and at the end of the flowering period). For each sampling, duplicate samples will be taken, except for the honey and beebread samples taken before spray as this is only a check.

For more details on the sampling size, frequency, and timing, the tenderer should check section 3.4.1 p21-22 and Table 3 p28 in [EFSA \(2017\)](#)<sup>6</sup>.

### **WP 2.6: Sugar concentration in nectar and floral origin of pollen**

Providing that the preliminary testing conducted in 2018 (WP 1.4 i) shows that the determination of sugar content in nectar (by refractometer) and/or the floral origin of pollen are useful proxies for foraging location/resources, such analyses should be made during the data collection in 2019 and 2020.

### *Sampling size timing and frequency:*

The sampling size, timing and frequency is the same as the one described for WP 2.5, (sampling at 4h, 1d, 3d and 5d after spray and 80 samples of nectar from bee sacks and 80 samples of pollen from bee baskets will be taken in 2019 and repeated in 2020). However, if changes in the sampling procedure are required (see WP 1.4 i) they should be agreed with EFSA prior implementation.

### **WP 2.7: Data collation and reporting**

All information and analytical results will be reported in the forms described in WP 1.1 and collated in a database. It is important to report data early to allow further instructions to be issued to resolve data quality issues and ensure that the final dataset is complete, correctly categorised according to the selected terminologies and that

variable combinations are plausible and meaningful. The final datasets must be "VALID" for all checks performed during the data submission.

*Timing and frequency:*

In the preparatory phase, data submission should be tested by Q4 2018. Thereafter, data should be submitted to the EFSA DCF in XML format at least every two months.

**Table 2.** Timing of the WPs in phases 1 and 2 of the project (the timeline of each WP is indicative and could be modified by the tenderer in their offer, if needed, with justifications).

WPs	2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.1. Database and field/lab forms												
1.2. Sites selection												
1.3. Sister queens rearing and start of colonies												
1.4. Field protocols finalisation												
1.5. Field operators training												
1.6. Colonies setting												
2.1. Agricultural practices and land use, cover and structure												
2.2. Local weather and in-hive conditions												
2.3. Hive management and colony observations												
2.4. Identification and prevalence of infectious agents												
2.5. Quantification of chemical residues in crops, bees and hives												
2.6. Sugar concentration in nectar and floral origin of pollen												
2.7. Data collation and reporting												

Q1 (Jan-March), Q2 (Apr-June), Q3 (Jul-September), Q4 (Oct-December)

**1.3 TASKS, DELIVERABLES, TIMELINE AND PAYMENTS (these are indicative timelines. EFSA reserves the right to modify these timelines during the implementation of the framework contract)**

No	Tasks	Can be subcontracted? <sup>18</sup>	Deadline for finalisation <sup>19</sup>
1.1	Database and field/lab forms	Yes	12 months after the entry into force of the contract
1.2	Sites selection	Yes	3 months after the entry into force of the contract
1.3	Sister queens and colonies rearing	Yes	9 months after the entry into force of the contract
1.4	Field protocols finalisation	Yes	9 months after the entry into force of the contract
1.5	Training of field operators	Yes	13 months after the entry into force of the contract
1.6	Colonies setting	Yes	10 months after the entry into force of the contract
2.1	Agricultural practices, land use, cover and structure in year 1 & 2	Yes	22 & 34 months after the entry into force of the contract
2.2	Local weather and in-hive conditions	Yes	34 months after the entry into force of the contract
2.3	Hive management and colony observations	Yes	34 months after the entry into force of the contract
2.4	Prevalence and identification of infectious agents	Yes	36 months after the entry into force of the contract
2.5	Quantification of chemical residues in fields, bees and bee matrices	Yes	36 months after the entry into force of the contract
2.6	Sugar concentration in nectar and floral origin of pollen	Yes	36 months after the entry into force of the contract
2.7	Data collation and reporting in EFSA DCF	Yes	36 months after the entry into force of the contract
No	Meetings		Deadline for finalisation
1	Kick off meeting (physical meeting in Parma - one day), During this meeting, in addition to project operational implementation it can be considered as an opportunity to discuss administrative and financial matters related to contract implementation.		Indicatively within 1 month after the entry into force of the framework contract
2	Mid-term project review meeting via teleconference. During this meeting, in addition to project operational implementation it can be considered as an opportunity to discuss administrative and financial matters related to contract implementation.		To be specified in the respective specific contract (estimated at month 4 from FWC signature)
3	Mid-term project review meeting via physical meeting. During this meeting, in addition to project operational implementation it can be considered as an opportunity to discuss administrative and financial matters related to contract implementation.		To be specified in the respective specific contract (estimated at month 11 from FWC signature)

<sup>18</sup> If a subcontractor provides the whole or a very large part of the financial capacity OR executes the whole or a very large part of the tasks, EFSA may demand that that the subcontractor signs the contract.

<sup>19</sup> All tasks and precise timeline for finalisation will be defined in the specific contract/order form. Tasks should only commence following signature of the respective specific contract/order form.

4	Mid-term project review meeting via teleconference meeting. During this meeting, in addition to project operational implementation it can be considered as an opportunity to discuss administrative and financial matters related to contract implementation.	To be specified in the respective specific contract (estimated at month 14 from FWC signature)
5	Mid-term project review meeting via teleconference meeting. During this meeting, in addition to project operational implementation it can be considered as an opportunity to discuss administrative and financial matters related to contract implementation.	To be specified in the respective specific contract (estimated at month 23 from FWC signature)
6	Mid-term project review meeting via teleconference meeting. During this meeting, in addition to project operational implementation it can be considered as an opportunity to discuss administrative and financial matters related to contract implementation.	To be specified in the respective specific contract (estimated at month 27 from FWC signature)
7	e.g. final meeting (physical meeting in Parma - one day), teleconference. During this meeting, in addition to project operational implementation it can be considered as an opportunity to discuss administrative and financial matters related to contract implementation.	To be specified in the respective specific contract (estimated at month 35 from FWC signature)
<b>No</b>	<b>Deliverables<sup>20</sup></b>	<b>Deadline for submission to EFSA<sup>21</sup></b>
1	Report on the description of the selected sites, the interactions with the modellers for the use of the GIS mapping for the sites and description of the coordination strategy with farmers for field operations and laboratories for analyses	3 months after the entry into force of the contract
2	Interim database and field/lab forms	6 months after the entry into force of the contract
3	Test data submission to EFSA DCF	10 months after the entry into force of the contract
4	Interim report 1 on field protocols testing (material, methods, first results), rearing of sister queens/colonies and tools to be used for the data collections	10 months after the entry into force of the contract
5	Final database and field/lab forms with eventually first data collated on agricultural practices year 1; Final report 1 on field protocols testing/training (final results and protocols for field operators)	13 months after the entry into force of the contract
6	Interim report 2 on agricultural practices land use, cover and structure year 1 and first results of lab analyses of year 1	24 months after the entry into force of the contract
7	Interim report 2 on final results of lab analyses of year 1 and first results of lab analysis of year 2	30 months after the entry into force of the contract
8	Final report 2 with final data on agricultural practices land use, cover and structure of year 1-2 and final results of lab analyses of year 1-2	36 months after the entry into force of the contract
9	Bi-monthly data reporting in EFSA DCF	14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36 months
<b>No</b>	<b>Payments</b>	<b>Linked to approval by EFSA of deliverable No</b>
NA	The payment modalities applicable to each order form or	NA

<sup>20</sup> The awarded contractor should invite MUST-B Steering Committee members to contribute to any Scientific communications on this project (scientific papers, conferences, etc.).

<sup>21</sup> All deliverables and precise timeline for finalisation will be defined in the specific contract/order form. Work on deliverables should only commence following signature of the respective specific contract/order form.

	specific contract are detailed in the draft framework contract	
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The working language for the contract implementation: execution of tasks, meetings and deliverables shall be English. The level of written English for deliverables should be of a high standard which does not require further proof-reading or editing.

#### 1.4 INFORMATION ON THE CONTRACT

**Type of contract:** framework contract (FWC)

**Type of FWC:** single FWC

**Nature of expense:** services

**Duration of FWC:** one year + automatic renewal up to 2 times for an overall maximum duration of three consecutive years.

**Budget information:** The financial ceiling available for specific contracts/order forms under the framework contract during an overall maximum period of three consecutive years is **1.000.000 €**. A contingency of 10% and possible price indexations are already included in this ceiling.

**Possible increase of FWC envelope** By virtue of article 134 (1)(e) and article 134 (4) of the Rules of Application of the Financial Regulation, EFSA reserves the option to launch further negotiated procedure, with the contractor chosen as a result of the present call for tender, for new services consisting in the repetition of similar services during the three years following the signature of the original contract. The increase will not go beyond 50% of the original envelope of 1.000.000 €.

As regards the mechanism of implementation of the FWC please refer to the [EFSA Guidance for tenderers](#) available at EFSA website.

#### 1.5 OWNERSHIP AND INTELLECTUAL PROPERTY RIGHTS

##### SPECIFIC INFORMATION ON INTELLECTUAL PROPERTY RIGHTS:

##### **PARTS OF RESULTS PRE-EXISTING THE CONTRACT**

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

EFSA does not acquire ownership or any license of pre-existing rights not incorporated in the deliverables. The full ownership is limited to the deliverables, which might include licensed pre-existing rights on excerpts, parts, texts etc., if fully or partially incorporated in the final deliverables.

**In accordance with EFSA's open access policy, data from this procurement procedure will be made publically available"**

The draft contract attached in **Annex 3** contains further provisions on ownership of intellectual property rights. All quotations or information the tenderer provides in the technical and financial offer for EFSA which originates from other sources to which third parties may claim rights, have to be clearly marked in the offer in a way allowing easy identification (source publications, including date & place, creator, number, full title etc.). The tenderer shall take account of the above specification on ownership and copyrights in their technical and financial offer.

## **PART 2 EVALUATION - HOW WILL YOUR OFFER BE ASSESSED?**

In case you apply as a group of economic operators in a joint offer or if your offer envisages the use of subcontractors, please also refer to the [EFSA Guidance for tenderers](#).

### **2.1 OPENING OF OFFERS**

The main aim of the public opening session is to check whether the offer received was dispatched within the closing date for tender receipt<sup>22</sup> and that the tenders are electronically protected until the official opening.

### **2.2 ORDER OF EVALUATION**

Tenderers should note that the content of their offers will be assessed in the following pre-defined order: Exclusion criteria (Access to EU Market); Selection criteria (Technical & Professional capacity); Compliance with tender specifications; Award Criteria (Quality and Price).

Following the above assessment and identification of the winning tender, the following will be assessed only for the tenderer proposed for contract award: Selection criteria (Professional Conflict of Interest – Institutional and Individual Declarations of Interest); Exclusion criteria (Declaration on Honour on exclusion criteria); Selection criteria (Declaration on Honour on selection criteria).

### **2.3 GROUNDS FOR EXCLUSION**

The offers declared admissible during the opening session will be further verified against the eligibility and the exclusion criteria.

As regards the eligibility of the tenderers to submit an offer following this call please refer to the [EFSA Guidance for tenderers](#) available at EFSA website. Only offers from tenderers established in eligible countries will be allowed to the next step of the evaluation – exclusion criteria verification.

Tenderers must not be in one of the exclusion situations listed in the [EFSA Guidance for tenderers](#) available at EFSA website.

#### **Evidence requested in the offer:**

- Tenderers must declare that they are not in one of the exclusion situations by providing a signed and dated Declaration on Honour on exclusion criteria, available in **Annex 4**. In case of a joint offer from a group of economic operators, such declaration should be submitted for each member of the group. Evidence may be requested in support of this declaration to the successful tenderer.

For info: EFSA will request further supporting evidence, from the awarded tenderers, prior to the signature of the framework contract. Such requested evidence will be

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<sup>22</sup> **Do not wait until the last day to upload your offer. Responsibility rests with you to ensure that your tender is fully, completely and correctly uploaded before the time limit for receipt. Failure to respect the time limit for receipt will result in the rejection of your offer for non-compliance with the deadline for tenders.**

specified in the award letter and will have to be provided to EFSA before the framework contract is signed.

## 2.4 SELECTION CRITERIA

The offers from tenderers declared eligible and not in one of the exclusion situations will be further verified against the selection criteria.

### **A) ECONOMIC AND FINANCIAL CAPACITY:**

The tenderer must have the following economic and financial capacity to perform the contract, in particular the tenderer must have generated an overall annual turnover of at least 600.000 € in each of the last 2 closed financial years (2016, 2015).

#### Evidence requested in the offer:

Tenderers must declare that they fulfil the economic and financial criteria indicated above by providing a signed and dated Declaration on Honour on selection criteria, available in **Annex 5**. In case of a joint offer from a group of economic operators, such declaration should be completed by the leading partner.

EFSA will request further supporting evidence (proof of annual turnover), from the awarded tenderer, prior to the signature of the framework contract. Such requested evidence will be specified in the award letter and will have to be provided to EFSA before the framework contract is signed.

### **B) TECHNICAL AND PROFESSIONAL CAPACITY:**

The tenderer must have the technical and professional capacity to perform the contract in accordance with the specifications below. In accordance with article 148(6) RAP, if EFSA, based on the assessment of the technical and professional capacity evidence, concludes that the tenderer has a professional conflicting interest and therefore does not possess the professional capacity to perform the contract to an appropriate quality standard, the tenderer may be rejected.

The tenderer must have the following **minimum professional capacity** to perform the contract:

- a) The tenderer must have extensive and demonstrable experience in managing and coordinating large research projects involving several partners with a focus on ecology, field surveys, field data collection/monitoring and;
- b) Ability to provide a team of experts compliant with these specific expertise requirements; Please note that one proposed CV can cover more than one profile requirements, all profiles and their requirements are mandatory:

#### **- For the whole duration of the project:**

- 1) 1 senior expert with 10 years demonstrated experience with at least 5 years in research project management and coordination, and with relevant publications within the last 3 years in ecology, field surveys and/or field data collection/monitoring to lead the overall project.
- 2) 1 senior expert with 10 years demonstrated experience with at least 5 years in field design/surveys to supervise the WP 1.4 in Phase 1 and to coordinate the training of field operators (WP 1.5) and field team operations during Phase 2.

- 3) 1 data manager expert with 3 years' experience of database design, development of online forms, management of multiple source/country data collections, use of XML as a transfer format, development and application of business rules to cover WPs 1.1 and 2.7.
- **For phase 1:**
- 4) 1 expert (Engineer/Master Degree or equivalent Degree with 2 years demonstrated experience or PhD Degree) to develop WP 1.4 and to support senior expert no.2 for the training of field operators (WP 1.5);
  - 5) 1 expert (Technician level) to cover WP 1.3 and to provide support to the experts in charge of developing WP 1.4-1.5;
  - 6) Laboratory team(s) to conduct non-chemical analyses in bee matrices (sugar content in nectar and floral origin of pollen).
- **For phase 2:**
- 7) In each country where the field data collection will be conducted:
    - At least, 2 experts. One of the two experts needs to have an Engineer/Master Degree or equivalent and 2 years demonstrated experience to cover WPs 2.2-2.6 (i.e. experience in beekeeping, bee biology and behaviour, sampling methodology for pollen/nectar on crops, bees and in-hive). However, some skills (e.g. for WP 1.4 and nectar/pollen sampling) could be gained with training in 2018 (WP 1.5); beekeeping support needs to be arranged at each site (either with local beekeepers or with the available expertise within the team);
    - 1 expert with an Engineer/Master Degree level or equivalent and 2 years demonstrated experience in botanical surveys to cover WP 2.1.
  - 8) Laboratory teams to conduct chemical residue analyses (multi-residues and mono-residue for flupyradifurone) in beebread, nectar/honey and pollen and other analyses in bees (infectious agents), nectar (sugar content) and pollen (floral origin).
- c) The expert(s) in charge of liaising with EFSA (for the meetings and progress reports) and field teams (e.g. for the training of field operators) must have an excellent level of spoken and written standard UK English. For non-native speakers, this should be demonstrated by an Official certificate of English proving a C1 level OR at least 2 years of work in an English-speaking environment OR working at least for 1 year in a project with English as the working language.

The tenderer must have the following **minimum technical capacity** to perform the contract:

- d) A minimum of quality assurance for the laboratory analyses (biological, chemical) as required in WP 2.4-2.6. Relevant documentation (SOPs and procedures) is required. ISO 17025 accreditation or GLP certificate is not obliged but would be an asset.

Specific Evidence requested for professional and technical capacity:

<u>For requirement a):</u>	A list of major relevant projects and publications related to the subject of this assignment carried out in the course of the past 5 years.
<u>For requirements b)</u>	A table confirming that the team members proposed for the assignment meet the minimum expertise requirements detailed above. The table ( <b>Annex 7</b> ) should be completed to show the named individual team member proposed as meeting each of the minimum expertise requirements. Detailed CVs of all team members proposed for the assignment, taking into account the minimum expertise requirements detailed above; EFSA strongly recommends submitting the CVs in the EU CV format which can be accessed <a href="#">here</a> .
<u>For requirement c):</u>	The requested certificate or demonstrated experience in the CV.
<u>For requirement d):</u>	A Statement describing the technical equipment compliant with the specific requirements.
	<b>Institutional declaration of interests</b> available <a href="#">here</a>  <i>In case of a group of economic operators and/or in case of subcontracting, such declaration should be completed separately and submitted for each partner and for each identified subcontractor.</i>
	<b>Individual declarations of interests</b> available <a href="#">here</a>  <i>A separate form to be completed by each member of the proposed team.</i>

With the exception of declarations of interest, evidence must be included in the offer for partners in a joint offer and/or subcontractors only if the capacity of those entities is necessary to satisfy the minimum technical and professional capacity requirements.

**GENERIC EVIDENCE COMMON FOR ALL SELECTION CRITERIA:**

1	<b>Declaration on Honour on selection criteria</b> available in <b>Annex 5</b>  <i>To be completed by the tenderer or by the leading partner in case of a joint offer.</i>
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Please note that you do not have to submit any of the above-mentioned evidence if already submitted to EFSA in response to any previous EFSA call, provided the evidence is exactly the same as requested in these tender specifications. If you avail yourself of this possibility, you have to specify the reference of the EFSA call for tenders under which you have already submitted the evidence to EFSA.

EFSA has the right, during the evaluation process, to request further evidence on the tenderer's compliance with the economic, financial, technical and professional capacity requirements.

## 2.5 COMPLIANCE WITH TENDER SPECIFICATION AND MINIMUM REQUIREMENTS

Your offer will be assessed for compliance with the tender specifications before its assessment against the award criteria.

Tenders are considered not to comply with the tender specifications and are therefore to be rejected if they:

- do not comply with minimum requirements laid down in the tender specifications (non-compliance);
- propose a solution different from the one that is imposed;
- propose a price above the fixed maximum set in the specifications;
- are submitted as variants, when the specifications do not authorise them;
- do not comply with applicable obligations under environmental, social and labour law established by Union law, national law and collective agreements or by the international environmental, social and labour law provisions listed in Annex X to Directive 2014/24/EU<sup>23</sup>.

In all these cases, the grounds for rejection is not linked to the award criteria so there is no evaluation as such. The tenderer will be informed of the ground for rejection without being given feedback on the content of the tender other than on the non-compliant elements.

## 2.6 AWARD CRITERIA

Tenders will be evaluated against the below defined award criteria. The award criteria serve to identify the **most economically advantageous offer**.

### **A) QUALITY AWARD CRITERIA**

#### **1. METHODOLOGY PROPOSED FOR IMPLEMENTATION (70 points - minimum threshold 70%)**

Tenderers must provide a detailed description and convincing justification of the following:

- a) The data management process (from field/lab data collection and reporting to data collation and analysis in the repository); **(20 points)**
- b) The finalization of the field protocols on observation hives and on the monitoring of colonies (colony size, foraging rate, nurses, brood development, etc.); **(30 points** – 15 points for finalization of field protocols on observation hives and 15 points on monitoring of colonies)
- c) The programme for the training of the field operators (workplan, timeline, composition of the team, meetings, training material, etc.); **(20 points)**

#### **2. PROJECT ORGANISATION (20 points)**

Tenderers must provide information on the following:

- a) Clear and detailed information on coordination/communication between the different teams both inside (e.g. between field, laboratory and data management teams) and outside (e.g. with the farmers and with the modelers) the consortium; **(10 points)**

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<sup>23</sup> OJ L 94 of 28.03.2014, p. 65

- b) Clear and detailed information on the distribution of tasks among the project team; in case of a joint offer & subcontractors, clarity on who does what, when and why (justify why the partner/subcontractor is proposed to do the particular task/work-package); **(5 points)**
- c) The communication with EFSA (who, how, when); **(5 points)**

**3. MEASURES TO GUARANTEE QUALITY OF DELIVERABLES and MEET DEADLINES TO GUARANTEE ON TIME DELIVERABLES (10 points)**

Tenderers should describe clearly the measures they will put in place to ensure deadlines for deliverables are met and the availability of proposed team members. Tenderers should also describe mitigation strategies to cover absence of team members.

**The sum of all quality award criteria gives a maximum possible total of 100 points.**

Tenderer shall elaborate in the technical offer on all points addressed in the technical specifications, bearing also in mind the above indicated award criteria, in order to score as many points against the quality award criteria as possible. The mere repetition of mandatory requirements set out in the technical specifications, without going into detail or without giving any added value in the technical offer, will only result in a very low score.

Offers must score at least 70% for quality award criterion no.1, and at least 70% of the maximum possible total points against the quality award criteria.

Tenders that do not reach these minimum quality thresholds will be eliminated from the subsequent stages of the evaluation process.

**B) PRICE AWARD CRITERION:**

Tenders which passed the above quality thresholds will be retained for the further assessment of the following:

- I. the price offer is made within the the maximum budget for financial offers indicated in the tender specifications and;
- II. the financial offer satisfies the formal requirements of the tender specifications.

**C) THE BEST PRICE-QUALITY RATIO:**

- I. The tenders for which the financial offers were made within the maximum budget for financial offers and satisfied the formal requirements indicated in the tender specification will be retained for the identification of the tender with the best price-quality ratio based on the formula:

<p><b>TOTAL SCORE OF THE EVALUATED OFFER (C) = ITS QUALITY SCORE (A) / ITS PRICE (B)</b></p>
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## **PART 3 HOW TO SUBMIT YOUR OFFER – e-SUBMISSION APPLICATION GUIDE**

You must submit your tender electronically via the e-Submission application available from the e-Tendering website before the time limit for receipt of tenders.

The e-Submission application allows economic operators to respond to call for tenders by preparing their tenders electronically in a structured and secured way, and submitting their tenders electronically. The e-Tendering is the starting point for launching the e-Submission application.

**Make sure you submit your tender on time: you are advised to start completing your tender early. To avoid any complications with regard to late receipt/non receipt of tenders within the deadline, please ensure that you submit your tender several hours before the deadline. A tender received after the deadline indicated in the procurement documents will be rejected.**

### **How to Submit your Tender in e-Submission**

You can access the e-Submission application via the corresponding call for tender in TED e-Tendering, as specified in the Invitation Letter.

In order to have access to e-Submission, you will need to "Subscribe to call for tenders" on TED e-Tendering first. To subscribe, you will need to login with your an [EU Login](#)<sup>24</sup>. In case you don't have an [EU Login](#), you can [create an account](#) at any moment. For more information see the [EU login help](#). After logging in with your EU Login password, the e-Tendering will then display a button 'submit your tender' and you will be able to access the e-Submission.

### **Information to be filled in**

In the e-Submission application, fill in and upload all necessary fields and documents as appropriate. All tenders must be clear, complete and consistent with all the requirements laid down in the tender specifications, including:

- **Signed declaration on Honour(s).** All members of a joint tender, including subcontractors – if applicable – must upload the signed and dated declaration on honour(s) using the templates available in Annex 4 and Annex 5,
- **Exclusion criteria.** If requested in the tender specifications, the tenderer and all members of a joint tender including subcontractors – if applicable – must provide the documentary evidence for exclusion criteria,
- **Selection criteria.** If requested in the tender specifications, the tenderer and all members of a joint tender including subcontractors – if applicable –, must provide the documentary evidence for selection criteria
- **Technical tender.** It must address all the requirements laid down in the tender specifications
- **Financial tender** The complete financial tender, including the breakdown of the price as provided in the tender specifications

<sup>24</sup> Previously called European Commission authentication system (ECAS)

For detailed instructions on how to submit your tender, consult the Quick Reference Guide for Economic Operators available in the [e-Submission help page](#), under the section "Quick Guide", where you will find:

- Technical requirements to use e-Submission
- Step-by-step guide to help you submit your tender
- Important advices and information on how to get technical support

***Please make sure all required documents and evidence are submitted with your tender.***

### **Documents to be signed and dated while creating your Tender**

The following documents must be signed and dated during the creation of your tender in e-Submission:

- **Declaration on honour(s).** All members of a joint tender, including subcontractors must sign and date the declaration on Exclusion criteria. Only the leader in a joint tender must sign and date the declaration on Selection criteria. The declaration on honour(s) must be converted to PDF format and then signed by the authorised representatives with advanced electronic signature based on qualified certificates or by hand. For technical details on the electronic Signatures, please consult the e-Submission [signature policy](#).
- **Tender Report.** This report is generated by e-Submission while you are completing your tender and it contains the list of documents that you submit. The sole tenderer's or leader's authorised representative(s) must sign the report.

You **must send** the signed Tender Report to the email address indicated in the paragraph below (Contact), stating the reference to the call for tenders and the Tender ID.

### **Re-submission or alternative tender**

After submitting a tender, but within the time limit for receipt of tenders, you may still submit a new version of your tender.

You must formally notify EFSA that the previous tender is withdrawn. You are also entitled to send several tenders to one call for tenders.

The notification must be sent to the e-mail address indicated in the paragraph below (Contact), stating the reference to the call for tenders and the Tender ID you wish to withdraw.

**If you submit a new Tender you must include all your Tender documents, including the Qualification and Tender documents.**

### **Withdrawal of tenders**

If after submitting a tender, you wish to completely withdraw your tender, you must formally notify that you wish to withdraw your submitted Tender(s). This notification must be signed by the same authorised legal representative(s) who previously signed the tender(s) in question. The notification must be sent to address indicated in the

paragraph below (Contact), stating the reference to the call for tenders and the Tender ID(s) you wish to withdraw.

### **Deadline for receipt of tenders**

The tender (including all documents) must be fully uploaded and received before the deadline for receipt of tenders indicated in the invitation to tender.

### **Please note that you are responsible to ensure that your full tender reaches the destination in due time.**

In case of problems with the submission of the electronic tender, we recommend that you call the helpdesk in reasonable time before the time limit for receipt. The time it takes to submit the tender and upload all your documents may vary considerably depending on the number of concurrent submissions by other economic operators, the size of your tender and the type of internet service you are using. We recommend that you upload the documents the day before the deadline.

If the contracting authority detects technical faults in the functioning of the electronic equipment used for submitting and receiving tenders due to which it is impossible to electronically submit and receive tenders, you will be informed of the extension of the time limit by the contracting authority at the e-Tendering link.

For more information or technical support on e-Submission, please visit the [e-Submission help site](#).

### **CONTACT**

- The original hand signed tender report must be scanned and sent by email immediately after submission, to the following address: [EFSAProcurement@efsa.europa.eu](mailto:EFSAProcurement@efsa.europa.eu).
- Notifications for re-submission or withdrawal of tenders must be sent to: [EFSAProcurement@efsa.europa.eu](mailto:EFSAProcurement@efsa.europa.eu)

When communicating state the reference to the call for tenders and, if applicable, the Tender ID.

- For technical support on e-Submission, please contact support as described in the help page:

[https://webgate.ec.europa.eu/supplier\\_portal\\_toolbox/esubmissionFileProject/files/BT3/spotsHelpPage\\_en.html](https://webgate.ec.europa.eu/supplier_portal_toolbox/esubmissionFileProject/files/BT3/spotsHelpPage_en.html)

## **ANNEX 1 - FINANCIAL OFFER TEMPLATE**

### **FINANCIAL OFFER**

Tenderers are requested to use the Excel spreadsheet (saved in e-Tendering with all other procurement documents) in order to draw up their financial offer.

## **ANNEX 2 – E-SUBMISSION QUICK REFERENCE GUIDE FOR ECONOMIC OPERATORS**

The guide can be viewed [here](#).

## **ANNEX 3 - DRAFT FRAMEWORK CONTRACT**

Tenderers should note that in the event that their offer is successful, the resulting contract will be based on the model annexed to these tender specifications.

## **ANNEX 4 - DECLARATION ON HONOUR ON EXCLUSION CRITERIA**

## **ANNEX 5 - DECLARATION ON HONOUR ON SELECTION CRITERIA**

## **ANNEX 6 - ADMINISTRATIVE DATA FORM**

## **ANNEX 7 - TABLE FOR SUMMARIZING PROFESSIONAL CAPACITY OF THE TEAM**

## **ANNEX 8 - INSTITUTIONAL DECLARATION OF INTERESTS**

## **ANNEX 9 - INDIVIDUAL DECLARATION OF INTERESTS**

**All templates are uploaded in e-Tendering with all other procurement documents.**