

Tender specifications



## **TENDER SPECIFICATIONS**

**Reference:** OC/EFSA/BIOHAW/2023/03

Subject: Developing a Methodology to Assess Positive Animal Welfare Using Behaviour-

analytic and Ethological Approaches

**Procurement procedure:** Open call (Article 164(1) (a) of the Financial Regulation)

Project/Process code: 04.01.025 (Animal Welfare)

**Budget Line:** 3210-RASC Risk Assessment and Scientific Cooperation

## **Tender specifications purpose:**

- 1. specify what EFSA will buy under the contract resulting from this procurement procedure;
- 2. announce the criteria which EFSA will use to identify the successful contractor;
- 3. guide tenderers in the preparation and sending of their offer;
- 4. form annex 1 of the contract resulting from this procurement procedure and be binding for contract implementation.

#### Additional guidance:

Please read the **EFSA Guidance for tenderers** available on the EFSA website, designed to assist potential tenderers in their understanding of EFSA procurement procedures.

## Provide EFSA with feedback:

If you considered applying to this call for tenders but finally decided not to, please provide **EFSAProcurement@efsa.europa.eu** with your feedback on the call and reasons for not applying. Feedback will be treated confidentially and will only be used for improving future EFSA procurement calls.



## **PROCEDURE TIMETABLE**

| Milestone  | Date <sup>1</sup>             | Comments  |
|--|-------------------------------|---|
| Launch date  | 27/06/2023                    | Date Contract Notice is sent to Official Journal  |
| Deadline for sending request for clarification to EFSA                   | 19/09/2023<br>at 14:30 (CEST) | Requests for clarification may only be submitted through the e-Tendering website as described in the Invitation Letter.  EFSA is not obliged to reply to clarifications received less than 6 working days before the deadline for submission of offers. |
| Deadline for EFSA to reply to clarification questions                    | 21/09/2023                    |   |
| "Receipt Time Limit" -<br>Closing date and time for<br>receipt of offers | 27/09/2023<br>at 14:30 (CEST) | Refer to the Invitation letter and part 3 of these tender specifications regarding how to submit your offer.  |
| Opening session  | 28/09/2023<br>at 14:30 (CEST) | Requests to attend the virtual opening session must be made not later than 3 hours in advance of the opening session. Refer to Invitation letter for details.   |
| Notification of evaluation results                                       | Estimated November 2023       | The outcome of the procurement procedure will be communicated to all tenderers exclusively using the e-mail address indicated in their offer. Please check regularly the inbox in question.   |
| Contract signature   | Estimated November 2023       |   |

 $<sup>^{\</sup>rm 1}$  All times are in the time zone of Italy, the country in which EFSA is based.





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

#### 1.1 BACKGROUND

Positive welfare is a facet of animal welfare that encompasses the positive aspects of an animal's life, i.e., positive physical and mental experiences. Although there is no universally agreed definition of positive welfare, a literature review suggested that positive welfare includes four key defining features: positive emotions, positive affective engagement, good quality of life and happiness. Positive welfare is becoming an increasing focus of animal welfare science. The reasons behind this are thought to be recognition that (1) most of the focus in animal welfare research and policy thus far has been on preventing negative welfare consequences; (2) the absence of negative welfare consequences (i.e., preventing suffering) is not the same as the presence of positive welfare (i.e., having positive physical and mental experiences); (3) non-human animals are capable of experiencing positive feelings, based on evidence from neuroscience and behavioural science; (4) there may be more comprehensive benefits linked to positive welfare, e.g., positive feelings may promote health; and (5) the general public associate animal welfare with the provision of opportunities for positive experiences, believing that preventing suffering is a baseline rather than the main component of animal welfare, according to social science research.<sup>2</sup>

Considering the shift towards more positive animal welfare, a robust assessment methodology needs to be developed that focusses on the animal's viewpoint ("asking the animal") instead of relying on human judgment. Animal-based indicators for positive welfare are being developed, e.g., the qualitative behavioural assessment (QBA) used by the Welfare Quality Protocol, but their validation and application on-farm has not yet been achieved.<sup>3</sup>

A more direct way of "asking" the animal is through operant procedures such as discrimination tasks and choice tests. The methodology used in these types of experiments originates in the scientific field of experimental behaviour analysis. Some of these procedures have been further developed using principles borrowed from behavioural economics to assess, e.g., the strength of reinforcing value.<sup>4</sup>

Despite the use of operant procedures in animal welfare research, there is only limited interdisciplinary collaboration between animal welfare science and behaviour analysis. Successful collaboration has produced interesting results, e.g. preference assessments of farm animals using behaviour-analytic protocols (e.g. hens, cows, goats, pigs)<sup>5,6</sup> or training animals to perform selected behaviours in the experimental laboratory or on

<sup>&</sup>lt;sup>2</sup> Rowe, E.; Mullan, S. Advancing a "Good Life" for Farm Animals: Development of Resource Tier Frameworks for On-Farm Assessment of Positive Welfare for Beef Cattle, Broiler Chicken and Pigs. Animals 2022, 12, 565. https://doi.org/10.3390/ani12050565.

<sup>&</sup>lt;sup>3</sup> Keeling, L.J.; Winckler, C.; Hintze, S.; Forkman, B. Towards a Positive Welfare Protocol for Cattle: A Critical Review of Indicators and Suggestion of HowWe Might Proceed. Front. Anim. Sci. 2021, 2, 753080.

<sup>&</sup>lt;sup>4</sup> Kirkden RD, Pajor EA. Using preference, motivation and aversion tests to ask scientific questions about animals' feelings. Applied Animal Behaviour Science 100, 29–47, 2006.

<sup>&</sup>lt;sup>5</sup> Foster, T. M., Temple, W., & Poling, A. (1997). Behavior analysis and farm animal welfare. The Behavior Analyst, 20(2), 87-95.

<sup>&</sup>lt;sup>6</sup> Sumpter, C. E., Foster, M. T., & Temple, W. (2002). Assessing animals' preferences: Concurrent schedules of reinforcement. International Journal of Comparative Psychology, 15(2).



farm. $^{7,8,9,10}$  The benefit of such collaboration for animal welfare has also been pointed out by behaviour analysts. $^{11,12}$ 

The aim of this call is to combine the expertise of animal welfare science and behaviour analysis to develop a robust methodology for "asking the animal" about its choices concerning its preferred environment and behaviours, including an assessment of the reinforcing properties of these preferences, and then develop indicators for positive welfare that reflect the animal's viewpoint as much as possible. Preference and choice are important concepts in the experimental analysis of behaviour.<sup>13</sup> This expertise is crucial for the design of choice experiments in the context of animal welfare research. Animal welfare experts can use this information to develop indicators for positive animal welfare and to integrate them into an overall assessment as animals do not always choose in their long-term best interests and other aspects, such as, e.g. health and nutrition, also need to be considered.

The activities of work package 1 includes both desk research and experimental research: literature search, design and implementation of choice experiments for at least two farm animal species (e.g., poultry and pigs), designing an environment that provides the conditions chosen by the animals, producing an ethogram of the animals in that optimised environment with the goal to identify indicators for positive welfare. These indicators will then be tested on farm.

In the context of regulated products, the EC has started an evaluation of its Feed Additives Regulation (Reg. (EC) No 1831/2003) and amendments (Reg. (EU) 2019/962), which identified some areas for improvement such as: the current authorisation system does not sufficiently promote the authorisation of feed additives that may be innovative and may have positive effects on the environment, animal welfare or sustainability of livestock farming. Reliable indicators for positive welfare would help evaluate the efficacy of feed additives in the context of EFSA's application procedures for regulated products regarding their effects on animal welfare. Applicants can claim that a feed additive favourably affects animal welfare (Regulation (EC) No 1831/2003) or the physiological condition, including their resilience to stress factors (Reg. (EU) 2019/962) but owing to the lack of validated measures, it is currently difficult to assess the validity of such claims. Expertise from behavioural pharmacology, which combines the scientific principles of behaviour analysis and pharmacology to investigate the behavioural effects of drugs (e.g., Dews, 1978; Kelleher and Morse, 2010; Zimmermann and Poling, 2017)<sup>14,15,16</sup> and dietary components (Dews, 1986),<sup>17</sup> can inform the development of an

<sup>&</sup>lt;sup>7</sup> Dirksen N, Langbein J, Schrader L, Puppe B, Elliffe D, Siebert K, Röttgen V, Matthews L. How Can Cattle Be Toilet Trained? Incorporating Reflexive Behaviours into a Behavioural Chain. Animals. 2020; 10(10):1889. https://doi.org/10.3390/ani10101889

<sup>&</sup>lt;sup>8</sup> Mejdell, C. M., Buvik, T., Jørgensen, G. H., & Bøe, K. E. (2016). Horses can learn to use symbols to communicate their preferences. Applied Animal Behaviour Science, 184, 66-73.

Dudde, A., Krause, E. T., Matthews, L. R., & Schrader, L. (2018). More than eggs-relationship between productivity and learning in laying hens. Frontiers in Psychology, 9, 2000.
 Matthews, L. R., & Ladewig, J. (1994). Environmental requirements of pigs measured by behavioural

<sup>&</sup>lt;sup>10</sup> Matthews, L. R., & Ladewig, J. (1994). Environmental requirements of pigs measured by behavioural demand functions. Animal behaviour, 47(3), 713-719.

<sup>&</sup>lt;sup>11</sup> Rasmussen, E. B., Newland, M. C., & Hemmelman, E. (2020). The Relevance of Operant Behavior in Conceptualizing the Psychological Well-Being of Captive Animals. Perspectives on Behavior Science, 43(3), 617-654.

 $<sup>^{12}</sup>$  Foster, T.M., Temple, W. & Poling, A. Behavior Analysis and Farm Animal Welfare. BEHAV ANALYST 20, 87–95 (1997). https://doi.org/10.1007/BF03392766

<sup>&</sup>lt;sup>13</sup> Martin TL, Yu CT, Martin GL, Fazzio D. On Choice, Preference, and Preference for Choice. Behav Anal Today. 2006;7(2):234-241. doi: 10.1037/h0100083. PMID: 23372459; PMCID: PMC3558524.

<sup>&</sup>lt;sup>14</sup> Dews, P. B. (1978). Origins and future of behavioral pharmacology. Life Sciences, 22(13-15), 1115-1121.

<sup>&</sup>lt;sup>15</sup> Kelleher, R. T., & Morse, W. H. (2010). Determinants of the specificity of behavioral effects of drugs. Reviews of Physiology Biochemistry and Experimental Pharmacology, Volume 60, 1-56.



experimental design that applicants could use to demonstrate their claims on favourable effects of feed additives on welfare.

The activities of work package 2 are desk research with the aim to provide a description of experimental designs that can be used to measure the effect of feed additives on animal welfare and to recommend experimental protocols depending on the type of predicted effect.

This call is based on EFSA Founding Regulation<sup>18</sup> and EFSA's 2023 Draft Work Programme for grants and operational procurements as presented in Annex XII of the Programming Document 2023 – 2025, available on the EFSA's website<sup>19</sup>.

#### 1.2 OBJECTIVES

The objective of the call is to combine expertise in the field of animal welfare science (ethology, animal sciences) and behaviour analysis (experimental and applied behaviour analysis, behavioural pharmacology) to develop a scientifically robust methodology to assess animals' preferences and choice ("asking the animal"), assess the reinforcing properties of these preferences, and use the animal's viewpoint expressed by those choices to develop indicators for positive animal welfare on farm.

A second objective of this call is to recommend a methodology to assess the effect of feed additives on animal welfare, for example applying experimental protocols applied in behavioural pharmacology to the effect of substances (drugs or dietary) on behaviour.

The activity is divided into two work packages:

- Work package 1: Identification and testing of indicators for positive animal welfare by creating an optimised environment from the animal's viewpoint
- Work package 2: Recommending experimental protocols to measure the effect of feed additives on animal welfare

# Work package 1: Identification and testing of indicators for positive animal welfare by creating optimised environments from the animal's viewpoint

The overall objective is to develop a robust methodology to assess and interpret animals' choices and define and test indicators for positive animal welfare that can be applied under field conditions.  $^{20,21,22}$ 

 $<sup>^{16}</sup>$  Zimmermann, Z. J., & Poling, A. (2016). The discipline of behavioral pharmacology. Behavior Analysis: Research and Practice, 16(4), 156.

<sup>&</sup>lt;sup>17</sup> Dews, P. B. (1986). Dietary pharmacology. Nutrition reviews.

<sup>&</sup>lt;sup>18</sup> Regulation (EC) 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety, as amended by Regulation (EU) 2019/1381 of the European Parliament and of the Council of 20 June 2019 on the transparency and sustainability of the EU risk assessment in the food chain.

<sup>19</sup> https://www.efsa.europa.eu/sites/default/files/2022-01/amp2325.pdf

<sup>&</sup>lt;sup>20</sup> Green, C. W., Gardner, S. M., & Reid, D. H. (1997). INCREASING INDICES OF HAPPINESS AMONG PEOPLE WITH PROFOUND MULTIPLE DISABILITIES: A PROGRAM REPLICATION AND COMPONENT ANALYSIS. Journal of Applied Behavior Analysis, 30(2), 217–228. https://doi.org/10.1901/jaba.1997.30-217

<sup>&</sup>lt;sup>21</sup> Parsons, M. B., Reid, D. H., Bentley, E., Inman, A., & Lattimore, L. P. (2012). Identifying Indices of Happiness and Unhappiness Among Adults With Autism: Potential Targets for Behavioral Assessment and Intervention. Behavior Analysis in Practice, 5(1), 15–25. https://doi.org/10.1007/BF03391814



## Specific objective 1: Identification of optimised environment under laboratory conditions for at least two farm animal species using choice tests

**Task 1.1**: Review experimental designs for single – or multiple choice tests (for example, but not limited to, concurrent schedules, <sup>23</sup> progressive ratios <sup>19,22,24</sup>, response-effort or time-constraints <sup>25,26,27</sup>)

A literature review is carried out to identify experimental designs for animal choice tests published in scientific journals in the fields of behaviour analysis (e.g., experimental analysis of behaviour) AND animal sciences (e.g., ethology, animal welfare science). The search criteria, inclusion and exclusion criteria are defined and agreed with EFSA beforehand.

The report includes a description of the methodologies applied for the choice tests as described in the included studies as well as an assessment of the limitations of these methodologies.

**Task 1.2**: Specify experimental protocol and apparatus for a single-or multiple choice test in at least two farm animal species

Taking into account the results from task 1.1., an experimental protocol is suggested for a choice test that is then applied to at least two farm animal species (e.g., poultry and pigs) in tasks 1.3 and 1.4. The suggested protocol should specify the design of the apparatus for the two farm animal species, the type and number of animals tested, preparatory training steps (habituation, magazine training), criteria for a stable baseline, reinforcement schedules, step sizes if progressive ratios are applied, changeover (switching) if concurred schedules are applied, session-termination criteria, definition of target response, type and amount of reinforcement delivered, control techniques for extraneous processes, and replication procedure. The limitations of the protocol(s) should be described. Ideally, the same protocol is applied (with amendments to adjust for species-specific requirements for e.g., apparatus and target response) to demonstrate generality of findings.

**Task 1.3:** Implement experimental protocol for single- or multiple choice test in at least two farm animal species

Application of the protocol developed in task 1.2. for choice test in at least two farm animal species under laboratory settings. The experimental protocol and/or apparatus design are refined until internal validity is established through e.g., reversal designs or multiple baseline.

<sup>&</sup>lt;sup>22</sup> Ramey, D., Healy, O., & McEnaney, E. (2022). Defining and Measuring Indices of Happiness and Unhappiness in Children Diagnosed with Autism Spectrum Disorder. Behavior Analysis in Practice. https://doi.org/10.1007/s40617-022-00710-y

<sup>&</sup>lt;sup>23</sup> Sumpter, C. E., Foster, M. T., & Temple, W. (2002). Assessing Animals' Preferences: Concurrent Schedules of Reinforcement. International Journal of Comparative Psychology, 15(2). https://doi.org/10.46867/C4201H <sup>24</sup> Gilroy, S. P., Kaplan, B. A., & Reed, D. D. (2020). Interpretation(s) of elasticity in operant demand. Journal of the Experimental Analysis of Behavior, 114(1), 106–115. https://doi.org/10.1002/jeab.610

<sup>&</sup>lt;sup>25</sup> Mason, G., McFarland, D., & Garner, J. (1998). A demanding task: Using economic techniques to assess animal priorities. Animal Behaviour.

<sup>&</sup>lt;sup>26</sup> Munksgaard, L., Jensen, M. B., Pedersen, L. J., Hansen, S. W., & Matthews, L. (2005). Quantifying behavioural priorities—Effects of time constraints on behaviour of dairy cows, Bos taurus. Applied Animal Behaviour Science, 92(1-2), 3-14.

<sup>&</sup>lt;sup>27</sup> Matthews, L. R. (1998). Using economic techniques to assess animal priorities: repays the investment. Animal behaviour, 55(4), 1076-1078.



At least one replication of the experiment is carried out per animal species with a new set of subjects (without prior experience with this experimental setup) to demonstrate reliability of the protocol.

**Task 1.4**: Identify conditions that animals select consistently in single- or multiple choice test for at least two farm animal species

Implementation of a series of experiments using the experimental protocol developed in task 1.3 to determine which combinations of activities and resources are the most preferred for the selected animal species and identify those that are avoided (e.g., light intensities that are preferred for certain activities but avoided for others). This should not be limited to physical requirements (space, litter, feed etc) but include access to performing preferred behaviours including social behaviours, variability of behaviour pattern and quality of interaction with human handlers. The selection of conditions to be tested should be informed by a literature search identifying environmental and behavioural requirements for those species (for example, but not limited to, EFSA AHAW opinions).<sup>28</sup>

## Specific objective 2: Development of reliable indicators for positive welfare under laboratory conditions

**Task 2.1**: Implement optimised environment for the animal species selected in specific objective 1

The results of specific objective 1 indicate the environmental characteristics that animals of the selected two species consistently select as preferred. In task 2.1., an experimental setup is constructed that combines these preferred characteristics identified in task 1.4. of objective 1. This experimental setup is then used as "optimised environment" representing what the animal would select if given a choice based on the series of choice experiments carried out in task 1.4 of objective 1. This could be, for example, an environment of sufficient space with preferred conditions of light, litter material, foraging substrate, access to enrichment items and conspecifics, or other combinations.

Before proceeding to task 2.2., the animals are given access to this optimised environment to explore and habituate until their behavioural patterns are stable.

In order to assess if the behavioural pattern is stable, a few selected behaviours are observed daily and data recorded on frequency and duration of, e.g., feeding, drinking, locomotory behaviour, interaction with objects or conspecifics. The behavioural pattern is considered stable when there are no large daily fluctuations in frequency and durations of the selected behaviours.

**Task 2.2:** Develop a detailed ethogram that describes the animals' behaviour under optimised environmental conditions

<sup>&</sup>lt;sup>28</sup> Methodological guidance: <a href="https://www.efsa.europa.eu/en/efsajournal/pub/7403">https://www.efsa.europa.eu/en/efsajournal/pub/7403</a>; welfare of pigs:

https://www.efsa.europa.eu/en/efsajournal/pub/7421; welfare of broilers:

https://www.efsa.europa.eu/en/efsajournal/pub/7788; welfare of laying hens:

https://www.efsa.europa.eu/en/efsajournal/pub/7789; welfare of calves:

https://www.efsa.europa.eu/en/efsajournal/pub/7896; welfare of dairy cow

https://www.efsa.europa.eu/en/efsajournal/pub/7993; welfare of ducks, geese and quail:

https://www.efsa.europa.eu/en/efsajournal/pub/7992.



When the behavioural pattern is confirmed stable in task 2.1, a detailed ethogram is developed for both species in their optimised environment to describe their behaviour in frequency and duration, e.g. exploratory behaviour, interaction with objects and conspecifics, feeding, resting, etc.

## **Task 2.3:** Identify potential indicators for positive welfare

Based on the ethogram developed in task 2.2 potential indicators for positive welfare are suggested, e.g. animal-based measures (ABMs). Reliability of an indicator includes its ability to produce similar results when tested by multiple different assessors (inter-observer reliability) or by the same assessor on multiple occasions (intra-observer reliability). Consistency over time is another aspect of reliability and describes the consistency of results from the same test, performed at two different times.<sup>29</sup>

The identified potential indicators for positive welfare are tested in task 2.4.

**Task 2.4:** Investigate reliability of indicators for positive welfare by changing the optimised environment gradually to identify those with the highest sensitivity and specificity

The reliability of the potential indicators for positive welfare is tested under laboratory conditions by systematically altering the optimised conditions. Gradually changing a preferred environmental characteristic to a less preferred or even mildly aversive option should be measurable as presence or absence of the indicator and thereby reflect its sensitivity and specificity.

Internal validity is demonstrated by e.g., reversal designs or multiple baseline, and external validity by replication with a new set of subjects of the same species (at least one replication for each animal species).

Results of inter-observer and intra-observer reliability are reported.

**Task 2.5**: Analyse the results of the experiments and recommend indicators for positive welfare of the selected farm animal species.

Based on the data generated in tasks 2.1 through 2.4, reliable indicators for positive welfare of the two animal species are recommended for on-farm assessments. The analysis should include an assessment of technical feasibility of the recommended indicators for their application on farm. Technical feasibility is defined as an assessments that can be carried out by a trained inspected within a half-day (4 hous) farm visit. Financial constraints and acceptance of indicators by farmers and stakeholders are excluded from the assessment.

## Specific objective 3: Development of reliable indicators for positive welfare under field conditions for at least two farm species

**Task 3.1.** Generalise the outcome of specific objective 2 (indicators for positive animal welfare) by application to farms with different husbandry systems and varying levels of animal welfare.

Assessing the suggested indicators for positive welfare on farms that provide:

<sup>&</sup>lt;sup>29</sup> Meagher R.K. Observer Ratings: Validity and Value as a Tool for Animal Welfare Research. Appl. Anim. Behav. Sci. 2009;119:1–14. doi: 10.1016/j.applanim.2009.02.026.





- a) Conditions that meet behavioural needs (absence of highly relevant negative welfare consequences)<sup>28</sup> but provide few opportunities to animals to select preferred behaviours (none or only one of the preferred conditions identified in specific objective 1)
- b) Conditions that meet behavioural needs (absence of highly relevant negative welfare consequences) <sup>28</sup> and provide some opportunities to animals to select preferred behaviours (more than one but not all of the preferred conditions identified in specific objective 1)
- c)Conditions that meet behavioural needs (absence of highly relevant negative welfare consequences) <sup>28</sup> and provide a large variety of opportunities to animals to select preferred behaviours (all of the preferred conditions identified in specific objective 1)

The selected indicators for positive welfare are applied equally at farms representing the three conditions above by professionals and lay people. Results of inter-observer and intra-observer reliability are reported.

**Task 3.2:** Analyse the result of the task 3.1 and recommend indicators for positive welfare on farm.

Analyse of the data generated in task 3.1. and conclude on the reliability of the indicators for positive welfare on farm. Provide recommendations for the application of the indicators on farm and potential improvements.

## Work package 2: Recommending experimental protocols to measure the effect of feed additives on animal welfare

The overall objective is to provide a detailed description of experimental designs that can be used to measure the effect of feed additives on animal welfare. Feed additives may have a variety of effects on the animals e.g., zootechnical performance and/or welfare. The choice of experimental protocols depends on the effect on the animal.

## Specific objective 1: Description of the potential effects of feed additives on animal welfare

Task 4.1. Collect and extract data on the effects of feed additives on animal welfare

A literature search is carried out on the effects of feed additives on animal welfare. In addition to scientific articles, reports and industry data are searched for information on their effect on welfare.

Data is collected on any effect on welfare and not limited to positive welfare.

Data extraction is carried out on animal species, type of feed additive, exposure (amount of additive at which the effects are observed), duration of treatment (minimum treatment time to observe effect), persistency of the effect (maximum duration of observed effect following the end of the treatment), measure of welfare effect (animal-based indicators or other measures).

**Task 4.2.** Analyse the results of the data extraction to identify the effect characteristics of feed additives that determine the choice of experimental protocol (e.g. reversibility of effects).



Describe the effects of the feed additives on welfare, not limiting to positive welfare, and its relevance to the choice of experimental protocol, e.g. if the effect is reversable, a reversal design could be used and if it not reversable or only after a long time, a multiple baseline design could be used.

## Specific objective 2: Identification of welfare measures for feed additives

**Task 5.1.** Identify suitable measures for an experimental protocol assessing the effect of feed additives on welfare

Identify welfare measures that are suitable to assess the effect of feed additives in an experimental protocol, including the indicators for positive animal welfare resulting from objective 2 of work package 1. In addition, animal-based measures from scientific literature, including the EFSA AHAW Panel Opinions on animal welfare in the context of the Farm-to-Fork Strategy, <sup>28</sup> are considered.

## Specific objective 3: Recommendations for experimental protocols to measure the effect of feed additives on animal welfare

**Task 6.1:** Describe experimental designs to measure the effect of feed additives on welfare

Describe experimental designs that are suitable to assess the effect of feed additives on animal behaviour. Identify criteria for the selection of an experimental protocol for the assessment of a feed additive based on the characteristics of the effect it may have on welfare, e.g., reversal designs for feed additives with a reversible effect and multiple baseline design for those with long lasting effect.

Describe the strengths and weaknesses of these designs in assessing the effect of feed additives on welfare.

**Task 6.2.** Recommend experimental protocols for assessing the welfare effects of feed additive

Recommend experimental protocols to assess effects of feed additives on welfare based on the effect characteristics identified in task 1.2 and using the selected welfare measures identified in task 2.1.

The description of the protocols provides enough detail to enable other laboratories to carry out the experiment.

Describe the limitations of the recommended experimental protocols and suggest solutions on how they could be improved (e.g., further research).



## 1.3 TASKS, DELIVERABLES, TIMELINE AND PAYMENTS

| Work<br>Package<br>(WP) /<br>Objective   | Tasks   | Deliverables  | Deadline                               |
|--|---|---|--|
|  | Task 1.1. Review  | Deliverable 1: Proposal for literature review on experimental choice tests  A written proposal is delivered detailing the search terms, range of publication year, data bases, and inclusion and exclusion criteria. This proposal is discussed and agreed with EFSA.   | 1 month<br>from kick-<br>off meeting   |
|  | experimental designs for single- or multiple choice tests   | Deliverable 2: Interim report 1 The report contains - a description of the methodology and the results of the literature search, - an assessment of the methodologies applied for the choice tests as described in the included studies, - an assessment of the limitations of these methodologies.   | 4 months<br>from kick-<br>off meeting  |
| WP 1 / Objective 1: Identification of optimised environment under laboratory conditions for at least two farm animal species using | Task 1.2. Specify experimental protocol and apparatus for single- or multiple choice test in at least two farm animal species   | Deliverable 3: Proposal for experimental protocol(s) and description of apparatus for a choice test in at least two farm animal species  A written proposal is delivered detailing the specifics of the protocol(s) for the choice test as well as a suggestion for the design of the apparatus for the two farm animal species. The suggested protocol(s) should specify the type and number of animals tested, preparatory training steps (habituation, magazine training), criteria for establishing the baseline, reinforcement schedules, step sizes if progressive ratios are applied, changeover (switching) if concurred schedules are applied, session-termination criteria, definition of target response, type and amount of reinforcement | 6 months<br>from kick-<br>off meeting  |
| choice tests   |   | delivered, control techniques for extraneous processes, and replication procedure. The limitations of the protocol(s) should be described.  This proposal is discussed and agreed with EFSA.  |  |
|  | Task 1.3. Implement experimental protocol for single or multiple choice test in at least two farm animal species  Task 1.4. Identify conditions that animals select consistently in single or multiple choice test for at least two farm animal | Deliverable 4: Interim report 2  The report should include the following descriptions/analyses in relation to both tasks 1.3 and 1.4:  For task 1.3: a) choice tests: description of the methodology applied for the choice test as a defined in task 1.2. including any changes, if applied; analysis of the results of the implementation of the choice tests with animals from at least two different farm animal species, b) validation:  | 20 months<br>from kick-<br>off meeting |
|  | species   | <ul> <li>description of the methodology of the replications to establish internal and external validity</li> <li>an analysis of the results of the replication</li> </ul>   |  |



|   |   | trials c) Overall assessment description of the strengths and weaknesses of the experimental protocol, including the apparatus used For task 1.4 description of the methodology applied to identify optimised environment; analysis of the results of the experiments to identify the optimised environment for at least two  |  |
|---|---|---|--|
|   |   | different farm animal species, - overall assessment of the strengths of weaknesses of the methodology applied   |  |
| WP 1 / Objective 2: Development of reliable indicators for positive welfare under laboratory conditions | Task 2.1. Implement optimised environment for the selected farm animal species identified in task 1.4.  Task 2.2. Develop a detailed ethogram that describes the animals' behaviour under optimised conditions  Task 2.3. Identify potential animal-based indicators  Task 2.4. Investigate reliability indicators by changing the optimised environment gradually to identify those with the highest sensitivity and specificity  Task 2.5. Analyse the results of the experiments and recommend indicators for positive welfare for the selected farm animal species. | Deliverable 5: Interim report 3  The report should include the following descriptions/analyses in relation to tasks 2.1 to 2.5:  Task 2.1  description of the optimised environment for the two farm animal species  description of the criteria for stable behavioural pattern of selected behaviours (establishment of baseline)  Task 2.2  ethogram for both animal species in optimised environment  Task 2.3  description of potential indicators for positive welfare based on ethogram in optimised environment  Task 2.4  description of methodology applied to test validity and reliability of indicators for positive welfare  Task 2.5  analysis of the results of the validation trial  recommendations for improving the suggested indicators to assess positive welfare of the two animal species on farm. | 30 months<br>from kick-<br>off meeting |
| WP 1 / Objective 3: Development of reliable indicators for positive welfare under field conditions      | Task 3.1. Generalise the outcome of specific objective 2 (indicators for positive animal welfare) by application to farms with different husbandry systems and varying levels of animal welfare for at least two farm animal species.  Task 3.2. Analyse the result task 3.1 trial and recommend indicators for positive welfare on farm for at least two farm animal species   | Deliverable 6: Final report WP 1  The report should include the following descriptions/analyses in relation to tasks 3.1 and 3.2:  - methodology used to validate indicators for positive welfare on farm for the selected animal species,  - analysis of the results of the validation trial on farm,  - overall assessment of the strengths of weaknesses of the methodology applied,  - provide recommendations for the application of the indicators on farm and potential improvements.  The report should also integrate the interim reports 1-3 into a cohesive final report for WP 1.   | 36 months<br>from kick-<br>off meeting |



| Task 4.1. Data collection and extraction on the effects of feed additives on animal welfare elects of feed additives on animal welfare elect.  WP 2/ Objective 2: Identification of welfare measures for feed additives welfare measures for feed additives  WP 2/ Objective 2: Identification of welfare measures for feed additives  WP 2/ Objective 3: Task 5.1. Identify suitable welfare measures for feed additives  WP 2/ Objective 3: Task 5.1. Identify suitable welfare measures for feed additives  WP 2/ Objective 3: Task 5.1. Identify suitable welfare measures for feed additives  WP 2/ Objective 3: Task 5.1. Identify suitable welfare measures for feed additives  WP 2/ Objective 3: Task 5.1. Identify suitable welfare measures for feed additives  WP 2/ Objective 3: Task 5.1. Identify suitable welfare measures for feed additives  WP 2/ Objective 3: Task 5.1. Identify suitable welfare measures for feed additives  WP 2/ Objective 3: Task 6.1. Describe according to the control of the measure that the control of the measures for feed additives that determine the choice of experimental protocol (task 4.2)  Deliverable 8: interim report  The report contains  Deliverable 9: interim report  The report contains  Deliverable 9: interim report  The report of the data extracted from literature (task 4.1)  Deliverable 9: interim report  The report contains  Deliverable 9: interim report  The report contains  Description of the data extracted from literature review on experimental protocol (task 4.2)  Description of the data extracted from literature review on experimental protocol (task 4.2)  Description of the data extracted from literature review on experimental protocol (task 4.2)  Description of recommended experimental protocols for experimental protocols for experimental protocols for assessing the welfare effects of feed additives on welfare,  Deliverable 9: interim report f | Ţ  |  |   |            |
|--|--|--|---|------------|
| WP 2/ Objective 2: Identification of welfare measures for feed additives  Task 5.1. Identify suitable welfare measures for feed additives  WP 2/ Objective 3: Recommendat ions for experimental protocols to measure the effect of feed additives on animal welfare  WF 2/ Objective 3: Recommendat ions for experimental protocols to measure the effect of additives on animal welfare  WF 6.2. Recommend additives on animal welfare  WF 6.3. Recommendat lead additives on animal welfare  WF 6.4. Recommendat eard interior on an animal welfare  WF 7/ Objective 3: Recommend eard interior on animal welfare  WF 6.5. Recommend eard interior on animal welfare  WF 7/ Objective 3: Recommend eard interior on animal welfare  WF 8/ Objective 3: Recommend eard interior on animal welfare  WF 8/ Objective 3: Recommend eard interior on a lead additives on welfare eard interior on an experimental protocols to measure the effect of feed additives on welfare eard interior on animal welfare  Task 6.2. Recommend eard interior of the effect of feed additives on welfare based on the effect characteristics of feed additives on welfare based on the effect characteristics of feed additives on welfare based on the effect characteristics identified in task 2.1. The description of the protocols provides enough detail to enable other laboratories to carry out the experiment, - description of the limitations of the recommended experimental protocols and suggestions how they could be improved (e.g., further research).  The report should also integrate the interim reports  | Objective 1: Description of the potential effects of feed additives on animal                              | and extraction on the effects of feed additives on animal welfare (e.g., from scientific literature, reports, industry data etc).  Task 4.2. Analyse the results of the data extraction to identify the effect characteristics of feed additives that determine the choice of experimental | on experimental choice tests  A written proposal is delivered detailing the search terms, range of publication year, data bases, and inclusion and exclusion criteria. This proposal is   | from kick- |
| WP 2/ Objective 3: Recommendations for experimental designs to measure the effect of feed additives on welfare  Task 6.1. Describe experimental designs to measure the effect of feed additives on welfare  Task 6.2. Recommend experimental protocols for additives on welfare  Task 6.3. Recommend experimental protocols to measure the effect of feed additives on welfare  Task 6.4. Recommend experimental protocols for additives on welfare  Task 6.5. Recommend experimental protocols for additives on welfare  Task 6.6. Recommend experimental protocols for additives on welfare  Task 6.1. Describe experimental protocol for the assessment of a feed additive based on the characteristics of the effect it may have on welfare,  - description of strengths and weaknesses of these designs in assessing the effect of feed additives on welfare,  - description of recommended experimental protocols to assess effects of feed additives on welfare based on the effect characteristics identified in task 1.2 and using the selected welfare measures identified in task 2.1 The description of the protocols provides enough detail to enable other laboratories to carry out the experiment,  - description of strengths and weaknesses of these designs in assessing the effect of feed additives on welfare,  - description of recommended experimental protocols to assess effects of feed additives on welfare,  - description of recommended experimental protocols to assess effects of feed additives on welfare,  - description of recommended experimental protocols to assess the effect of feed additives on welfare,  - description of strengths and weaknesses of these designs in assessing the effect of feed additives on welfare,  - description of recommended experimental protocols to assess effects of feed additives on welfare,  - description of recommended experimental protocols to assess effects of feed additives on welfare,  - description of recommended experimental protocols additives on welfare,  - description of recommended experimental protocols of the ef   | Objective 2:<br>Identification<br>of welfare<br>measures for   | welfare measures for feed  | The report contains - description of the methodology and the results of the literature search (deliverable 7) - overview of the data extracted from literature (task 4.1) - description of effect characteristics of feed additives that determine the choice of experimental protocol (task 4.2) - suggestions for suitable welfare measures for feed additives (task 5.1)   | from kick- |
|  | Objective 3: Recommendat ions for experimental protocols to measure the effect of feed additives on animal | experimental designs to measure the effect of feed additives on welfare <b>Task 6.2.</b> Recommend experimental protocols for assessing the welfare effects  | The report should include the following descriptions/analyses in relation to tasks 3.1 and 3.2:  description of experimental designs that are suitable to assess the effect of feed additives on animal behaviour.  description of criteria for the selection of an experimental protocol for the assessment of a feed additive based on the characteristics of the effect it may have on welfare,  description of strengths and weaknesses of these designs in assessing the effect of feed additives on welfare,  description of recommended experimental protocols to assess effects of feed additives on welfare based on the effect characteristics identified in task 1.2 and using the selected welfare measures identified in task 2.1 The description of the protocols provides enough detail to enable other laboratories to carry out the experiment,  description of the limitations of the recommended experimental protocols and suggestions how they could be improved (e.g., further research). | from kick- |

Subcontracting is allowed for all tasks



| No. | Meetings   | Deadline for finalisation                  |
|-----|--|--|
| 1   | Kick-off meeting: teleconference one day <sup>30</sup> During this meeting, in addition to operational implementation the administrative and financial matters related to contract implementation will be discussed. | 1 month after entry into force of contract |
| 2   | Interim meeting:<br>teleconference one day<br>To update on progress and discuss deliverable 2 and 3 (WP 1)   | 6 months from kick-off<br>meeting          |
| 3   | Interim meeting: Teleconference one day To update on progress and discuss deliverable 8 (WP 2)   | 12 months from kick-off<br>meeting         |
| 4   | Interim meeting: Teleconference one day To update on progress and discuss deliverable 4 (WP 1)   | 20 months from kick-off<br>meeting         |
| 5   | Interim meeting: Teleconference one day To update on progress, discuss task 2.3 (WP 1) and deliverable 9 (WP 2)  | 25 months from kick-off meeting            |
| 6   | Interim meeting: Teleconference one day To update on progress and discuss deliverable 5 (WP 1)   | 30 months from kick-off meeting            |
| 7   | Final meeting: teleconference one day To update on progress and discuss deliverable 6 (WP 1)   | 36 months from kick-off meeting            |
| No. | Payments   | Linked to EFSA approval of deliverable No. |
| 1   | Interim payment 1 of 40 %  | 1, 2, 3, 7, 8                              |
| 2   | Interim payment 2 of 30 %  | 4 & 9                                      |
| 3   | Payment of the balance of 100% - 70% of the interim payment  | 5, 6                                       |

The working language for contract implementation including execution of tasks, meetings and deliverables shall be English. Any written deliverables must be to a high standard of English which does not require proof reading.

#### 1.4 INFORMATION ON THE CONTRACT

Tenderers should note that the draft contract is published with the call for tenders. In the event that any tenderer should have specific comments on the provisions of the draft contract, these must be raised in a clarification, prior to the deadline for receipt of tenders so that a clear and transparent reply may be published for the benefit and information of all tenderers.

Nature of expense:servicesType of contract:direct

<u>Place of performance:</u> contractor's premises

**Duration of tasks in direct contract:** 36 months from kick-off meeting **Budget information:** The maximum budget EFSA has available is 500,000 €.

Any offer exceeding this maximum will be excluded from further assessment during evaluation.

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 $<sup>^{30}</sup>$  One day = 8 hours, half day = 4 hours



## 1.5 OWNERSHIP, INTELLECTUAL PROPERTY RIGHTS, USE OF RESULTS

As regards any product or delivery commissioned by EFSA and developed by the contractor in the context of the contract resulting from this call for tenders, as well as source codes of IT applications and models developed for EFSA, the intellectual property rights will be owned by EFSA only in its capacity as financial source of the contract. The contractor cannot file a trademark, patent, copyright or other IPR protection scheme in relation to any of the results or rights obtained by EFSA in performance of the contract, unless the contractor requests EFSA ex-ante authorisation and obtains from EFSA a written consent in this regard.

In addition, the contractor selected as a result of the present procurement procedure shall be solely responsible and liable for the following:

- To ensure that terms and conditions asserted by any copyright holder of publications or information referred to in the final deliverable for EFSA are fully satisfied;
- To make the necessary arrangements enabling EFSA to reproduce and make non-commercial use of publications and information referred to in the final deliverable it commissioned. As needed, the contractor shall consult with copyright licensing authorities (i.e. at national level) for guidance on purchasing copyright licenses to reproduce any publications provided to EFSA. The contractor remains solely responsible and liable for obtaining all necessary authorizations and rights to use, reproduce and share the publications provided to EFSA

In the specific case of literature reviews, should the entirety or partial texts covered by pre-existing rights be used in the final deliverables for EFSA the "Contractor shall consult with copyright licensing authorities (i.e. at national level) for guidance on purchasing copyright licenses to reproduce any publications provided to EFSA. The contractor remains solely responsible and liable for obtaining all necessary authorizations and rights to use, reproduce and share the publications provided to EFSA".

In practical terms in the context of systematic reviews, EFSA requires a list of references to be provided as part of the deliverables that does not entail any copyright issues. In addition in case of systematic reviews full texts may be shared with EFSA for the sole purpose of assessing the completeness of deliverables. Full texts will not be part of final deliverables

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.

The draft contract in Annex 2 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.

#### Use of results

EFSA is committed to the publication of contract deliverables - such as supporting evidence in the form of datasets, raw data, protocols etc. in the Knowledge Junction in



order to improve transparency, reproducibility and evidence reuse. The Knowledge Junction<sup>31</sup> repository of EFSA runs on the EU-funded Zenodo research-sharing platform where uploaded items receive a unique Digital Object Identifier to make them citable. Any part of the output resulting from this contract may be published (at EFSA's discretion) on the Knowledge Junction repository, with attribution to the contractor, and several deliverables can be cross-linked among them and to the published final Report on Wiley Online Library.

### 1.6 PERSONAL DATA PROTECTION AND CONFIDENTIALITY

Processing of personal data in the context of this contract shall comply with Regulation (EU) 2018/1725 ('the EUDPR')<sup>32</sup>. The EUDPR constitutes the specific data protection legal framework applicable to EU institutions, bodies, offices and agencies, including EFSA and is aligned with the rules and principles under the General Data Protection Regulation (EU) 2016/679 (GDPR), applicable in the European Union.

In terms of the EDPR, EFSA acts as the controller for processing of personal data under the contract and the selected contractor, any consortium partner and subcontractor, as the processor or sub-processor.

## Processing of personal data by EFSA as contracting authority (controller)

Information on the processing of personal data by EFSA as contracting authority in charge of the present procurement procedure is available in the <u>Privacy Statement</u> on the EFSA website as well as in Article II.9.1 of the draft contract in Annex 2.

Please note that your personal data as a tenderer or selected contractor may be registered in the Early Detection and Exclusion System (EDES) if you are in one of the situations mentioned in Article 136 of the Financial Regulation. The relevant Privacy Statement is available on the European Commission's website, here: http://ec.europa.eu/budget/explained/management/protecting/protect en.cfm#BDCE.

<u>Processing of personal data by the selected contractor (processor/sub-processor)</u>
In case tasks and activities under this call relate to the processing of personal data, Article II.9.2 of the draft contract in Annex 2 shall be observed.

For further information on data protection, please refer to the **EFSA guidance for tenderers** on the EFSA website, page 13.

#### Confidentiality

Tender bids will be treated confidentially in accordance with the case law of the European Courts, which confirms the existence of a presumption of non-disclosure in case of a request for public access to documents in accordance with Regulation (EC) No 1049/2001. This does not prevent that specific parts of the submitted tender may be subject to disclosure when applicable law so requires. Unless there is an overriding public interest in disclosure, EFSA will refuse full access to the submitted tender, redacting the parts that contain confidential information, the disclosure of which would undermine the protection of commercial interests and intellectual property of the tenderer.

Accordingly, EFSA will disregard general statements that the whole tender or substantial parts thereof are confidential information. Tenderers need to mark clearly the specific parts of their tender bid they consider confidential providing an explanation why the

<sup>31</sup> https://zenodo.org/communities/efsa-kj/?page=1&size=20

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32018R1725



information should not be disclosed, which may be subject to EFSA's further assessment in accordance with applicable law.

## 1.7 COMPLIANCE WITH ANIMAL WELFARE RELATED ETHICAL STANDARDS

For what concerns the activities involving animal experiments, the tenderer shall ensure compliance with Directive 2010/63/EU on the protection of animals used for scientific purposes<sup>33</sup>, including application of 'the 3 Rs principle' (Article 4) and the provisions on the choice of methods (Article 13). See section 2.4 for what concerns the relevant evidence to be included in the tenderer's offer.

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<sup>&</sup>lt;sup>33</sup> Consolidated version of Directive 2010/63/EU on: <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02010L0063-20190626">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02010L0063-20190626</a>



## 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 refer to the **EFSA Guidance for tenderers**.

## **2.1 OPENING OFFERS**

The aim of the public opening session is to check whether the offer received was dispatched by the deadline for tender receipt and that the tenders are electronically protected until the official opening.

#### 2.2 ORDER OF EVALUATION

The content of the offers will be assessed against the following criteria: Exclusion criteria (Access to EU Market; Declaration on Honour, section A); Compliance with tender specifications; Selection criteria (Economic and financial capacity-Declaration on Honour, section B; Technical & Professional capacity); Award Criteria (Quality and Price).

EFSA will evaluate the abovementioned elements in the order that it considers to be the most appropriate.

If a technical and/or financial offer is incomplete or missing, EFSA reserves the right to reject the tenderer at any stage.

During evaluation, some additional documents may be requested in order to assess the following: Selection criteria (Professional Conflict of Interest – Institutional and Individual Declarations of Interest); Exclusion criteria; Selection criteria (Economic and financial capacity).

## 2.3 GROUNDS FOR EXCLUSION

| Criterion<br>No. 2.3 | Requirements and requested evidence  |
|----------------------|--|
| 1                    | Eligibility – access to EU Market  |
|                      | Requirements:  |
|                      | Only offers from <b>tenderers</b> established in eligible countries will be allowed to the next step of the evaluation. Please refer to the <b>EFSA Guidance for tenderers</b> for further details <sup>34</sup> .   |
|                      | By submitting an offer, tenderers (including partners and/or subcontractors) confirm that they are not subject to EU restrictive measures adopted under Article 29 of the Treaty on the European Union (TEU) or Article 215 of the Treaty on the Functioning of the EU (TFEU) <sup>35</sup> . EFSA reserves the right to refer to publicly available information to check whether an organization is subject to EU restrictive measure. The prohibition of being subject to EU restrictive |

<sup>&</sup>lt;sup>34</sup> Please note that Procurement procedures of EFSA are not covered by the WTO Multilateral Government Procurement Agreement (GPA).

<sup>&</sup>lt;sup>35</sup> The EU Official Journal contains the list of entities subject to restrictive measures and is regularly updated.



| measures applies throughout the whole performance of the contract.   |
|--|
| Following the Council Implementing Decision (EU) 2022/2506 <sup>36</sup> , as of 16th December 2022, no legal commitments can be signed with Hungarian public interest trusts established under Hungarian Act IX of 2021 or any entity they maintain. This applies to all contractual level commitments, including subcontractors. |
| Requested evidence:  |
| Administrative data forms (including LEF and BAF): available here  |

| Criterion<br>No. 2.3 | Requirements and requested evidence  |
|----------------------|--|
| 2                    | Exclusion  |
|                      | Requirements:  |
|                      | Tenderers must not be in one of the exclusion situations listed in article 136 of the Financial Regulation, explained in the <u>EFSA Guidance for tenderers</u> .  |
|                      | Requested evidence:  |
|                      | <b>Declaration on Honour (section A):</b> Tenderers must declare that they are not in one of the exclusion situations by providing a signed and dated <b>Declaration on Honour</b> , available <a href="here">here</a> . In case of a joint offer from a group of economic operators, or in case of subcontracting, such declaration should be submitted for each member of the group and for each identified subcontractor. |
|                      | Further evidence in support of this declaration may be requested during evaluation.  |

## 2.4 SELECTION CRITERIA

## A) Economic and financial capacity

| Criterion<br>No.<br>2.4.A | Requirements and requested evidence     |
|---------------------------|---|
| 1                         | Minimum economic and financial capacity |
|                           | Requirements:                           |

 $<sup>^{36} \, \</sup>underline{https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022D2506}$ 



| The tenderer must have generated an overall annual turnover of at least 250.000 € in each of the last 2 closed financial years (2021, 2020).   |
|--|
| Requested evidence:  |
| <b>Declaration on Honour (economic and financial capacity section B):</b> Tenderers must declare they fulfil the economic and financial capacity by providing a signed and dated <b>Declaration on Honour</b> , available <a href="here">here</a> . In case of a joint offer from a group of economic operators, such declaration should be completed by the leading partner only. |

In addition to the evidence requested above, 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.

In particular, EFSA may request proof of annual turnover This evidence will be evaluated on a consolidated basis.

In the event of partners in a joint offer or subcontractors providing the financial capacity, if during contract implementation, there is a request to change a subcontractor or to assign the contract to a new legal entity, the economic and financial capacity will be checked for the last 2 most recent closed financial years and not necessarily the financial years published with the call.

## B) Professional and Technical professional capacity

| Criterion<br>No.<br><b>2.4.B</b> | Requirements and requested evidence   |
|----------------------------------|---|
| 1                                | Professional capacity: overall at organisational level  |
|                                  | Requirements:   |
|                                  | <ul> <li>a) The tenderer overall must have extensive and demonstrable experience in</li> <li>Animal behaviour or animal welfare research</li> <li>Collecting, analysis and managing data relating to the field of the contract, handling large amounts of information, research and work programmes, and producing summary reports</li> <li>Legislation and standards on feed additives.</li> </ul> |
|                                  | Requested evidence:   |
|                                  | <ul> <li>A list of at least three major projects or publications related to the subject<br/>matter of this contract (i.e. animal welfare), carried out in the course of<br/>the past 5 years;</li> </ul>  |
| 2                                | Professional capacity: Ability to provide a team of experts compliant with these specific expertise requirements  |
|                                  | Requirements:   |
|                                  | a) 1 expert acting as project manager with at least 5 years of experience in project management in the area of animal behaviour and/or animal   |



welfare and at least 2 projects or publications on animal experiments using operant techniques. He/she should have experience in the coordination of at least 2 large-scale projects ( $\geq 100.000~\rm C$ ) and interdisciplinary projects and in the management of project teams of at least 5 people;

The project manager shall be responsible for the overall contract and the management and coordination of the implementation of all services requested by EFSA in this call for tender. The project manager will be the interface for all commercial and contractual matters and the overall contact point for the services requested by EFSA. He/she shall work and liaise with ensuring the coherence for the overall work, including overseeing control of delivered service, client orientation and conflict resolution.

- b) 1 expert in animal welfare or ethology with at least 5 years of experience including the development of ethograms for farm animal species and onfarm welfare assessments;
- c) 1 expert in behaviour analysis with at least 5 years of experience including at least 2 projects or publications on animal behaviour and/or animal welfare implementing animal experiments using operant techniques;
- d) 1 expert in behavioural pharmacology with at least 5 years of experience on the implementation and data analysis of experiments assessing the effect of substances on the behaviour of animals.

## Requested evidence:

- Detailed CVs of the Project team members proposed for the assignment.
   EFSA strongly recommends submitting the CVs in the EU CV format which can be accessed here.
- Tenderers should also provide a one-page summary of the names of the individual Project team members and the profiles covered.

## 3 Professional capacity: English language capacity of the team overall

### Requirements:

The team of experts must have overall an excellent level of spoken and written standard English. For non-native speakers, this should be demonstrated by an Official certificate of C1 level OR at least 3 years of work or studies in an English-speaking environment OR participation in at least 3 international projects using English as main language OR active participation in at least 3 conferences or 3 publications in English;

#### Requested evidence:

Detailed CVs of the Project team members proposed for the assignment.
 EFSA strongly recommends submitting the CVs in the EU CV format which



|   | can be accessed <u>here</u> .   |  |  |  |
|---|---|--|--|--|
| 4 | Professional capacity: Compliance with animal welfare related ethical standards   |  |  |  |
|   | Requirements:  Ability to carry out activities in compliance with Directive 2010/63/EU of the European Parliament and of the Council of 22 September 2010 on the protection of animals used for scientific purposes <sup>37</sup> .   |  |  |  |
|   |   |  |  |  |
|   | Requested evidence:   |  |  |  |
|   | <ul> <li>A signed statement in which the tenderer declares that, i) they will<br/>perform the activities involving animal experiments in compliance with<br/>Directive 2010/63/EU, and ii) they will obtain any necessary ethical<br/>clearance for the animal experiments as applicable in the country where<br/>the experiments are conducted.</li> </ul>   |  |  |  |
| 5 | Technical capacity: overall at organisational level   |  |  |  |
|   | Requirements:   |  |  |  |
|   | The tenderer must have access to:  a) relevant databases for performing literature searches with access to journals from animal sciences (animal behaviour and welfare), behaviour analysis and psychology, as well as behavioural pharmacology.  b) an appropriate animal laboratory with experimental animals of at least two farm animal species and the technical equipment to carry out animal experiments using operant techniques (e.g. operant chamber, Skinner box). |  |  |  |
|   | Requested evidence:   |  |  |  |
|   | <ul> <li>A statement confirming access to and describing:         <ul> <li>databases as under requirement a),</li> <li>appropriate animal laboratory for animal experiments a equipment for operant tests as under requirement b).</li> </ul> </li> </ul>   |  |  |  |
| 6 | Declaration on Honour   |  |  |  |
|   | Requirements:   |  |  |  |
|   | a) Signed declaration on honour.  |  |  |  |
|   | Requested evidence:   |  |  |  |
|   | Declaration on Honour ( <u>Professional and Technical capacital section B</u> ), available <u>here</u> . To be completed by the tenderer (in case   |  |  |  |

 $^{37}$  Consolidated version of Directive 2010/63/EU on:  $\underline{\text{https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02010L0063-20190626}}$ 





|   | joint offer by the leading partner only); |  |  |
|---|---|--|--|
| 7   | Confirmatory statement of resources       |  |  |
|   | Requirements:                             |  |  |
|   | a) Signed declaration on honour           |  |  |
|   | Requested evidence:                       |  |  |
| <ul> <li>Declaration on Honour (section C), available <a href="here">here</a>. To be comed by the leading partner, any other partners and/or subcontractors applicable for joint offers or offers with subcontracting)</li> </ul> |   |  |  |

## C) Professional conflicting interest

In accordance with article 167(1)(c) of the Financial Regulation and paragraph 104 of the recitals, 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.

## Evidence requested:

The following evidence will be requested, prior to and as a condition of contract signature:

**Institutional declaration of interests** available <a href="here">here</a> In case of a group of economic operators and/or in case of subcontracting, such declaration will need to be completed separately and submitted for each partner and for each identified subcontractor and;

**Individual declarations of interests** available <a href="here">here</a> may be requested for members of the project team having influence and/or control over scientific outputs.

Institutional and Individual DoIs do not need to be provided with your offer. The Institutional and Individual DoIs will have to be provided and assessed by the EFSA Authorising Officer before and as a condition of contract signature. Please refer to EFSA's policy on independence and the Decision of the Executive Director on Competing Interest Management for detailed information.

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 economic, financial, technical and professional capacity requirements.

If any of the declarations or information provided proves to be false, EFSA may impose administrative sanctions (exclusion or financial penalties) on the entity providing the false declarations/information.

For the purposes of the evaluation related to exclusion and selection criteria EFSA may also refer to publicly available information, in particular evidence that it can access on a national database free of charge.



## 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 do not comply with the tender specifications and will be rejected if they:

| do not comply with minimum requirements laid down in the tender specifications; propose a solution different from the one imposed; propose a price above the fixed maximum set in the specifications; propose contractual terms or conditions which deviate from what is provided in the draft contract (Annex 2),  |
|---|
| 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>38</sup> and compliance with data protection obligations resulting from Regulation (EU) 2016/679 and Regulation (EU) 2018/1725 <sup>39</sup> . |
| Hom Regulation (Lo) 2010/079 and Regulation (Lo) 2010/1725.   |

The grounds for rejection is not linked to the award criteria so there is no evaluation. The tenderer will be informed of the grounds 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 award criteria. The award criteria serve to identify the **most economically advantageous offer**.

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

| Criterion<br>No. <b>2.6</b> | Criteria:  |
|-----------------------------|--|
| 1                           | METHODOLOGY PROPOSED FOR IMPLEMENTATION (50 points - minimum threshold 60%)  |
|                             | <ul> <li>a) Convincing justification of the choice of proposed methodology; advantages and disadvantages; 40 points</li> <li>b) Logical and structured step by step explanation of methodology; 10 points</li> </ul> |
| 2                           | PROJECT ORGANISATION (20 points - minimum threshold 60%)   |

<sup>&</sup>lt;sup>38</sup> OJ L 94 of 28.03.2014, p. 65

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<sup>&</sup>lt;sup>39</sup> Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of individuals with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC, OJ L 295/39 21.11.2018, <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R1725&from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R1725&from=EN</a>



|   | <ul> <li>a) Clarity of organization of project into work packages and clear and detailed<br/>information on distribution of the tasks among the project team; in case of<br/>joint offer &amp; subcontractors, clarity on who does what, when and why<br/>(justify why the partner/subcontractor is proposed to do the particular<br/>task/work-package); 10 points</li> </ul> |  |  |  |
|---|--|--|--|--|
|   | Quality of the internal communication; in case of joint offers & subcontractors also the communication between joint offers partners and subcontractors; as well as communication with EFSA (who, how, when); 10 points  |  |  |  |
| 3 | RISK MANAGEMENT (10 points)  |  |  |  |
|   | This is to assess the risk management awareness of the tenderer, in particular the ability to identify any potential risks to the achievement of the project objectives, assess risk impact & likelihood, and ability to foresee effective mitigating actions:   |  |  |  |
|   | <ul> <li>Risk identification; risk mitigation actions and their likely effectiveness;</li> <li>10 points</li> </ul>  |  |  |  |
| 4 | MEASURES TO GUARANTEE QUALITY OF DELIVERABLES (10 points)  |  |  |  |
|   | This is to assess the quality assurance mechanisms put in place to guarantee the high quality of deliverables:   |  |  |  |
|   | - measures for quality assurance proposed for this particular project; <b>10 points</b>  |  |  |  |
| 5 | MEASURES TO MEET DEADLINES TO GUARANTEE ON TIME  |  |  |  |
|   | DELIVERABLES (10 points)   |  |  |  |
|   | This is to assess the mechanisms put in place to guarantee availability of contractor for assignment and to meet the agreed deadlines for deliverables:  |  |  |  |

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

Tenderers must provide a detailed technical offer addressing all points in the technical specifications and each of the quality award criteria. Repetition of mandatory requirements in the technical specifications without providing detail in the technical offer will only result in a very low score.

## **B) PRICE AWARD CRITERION**

Tenders which passed the quality thresholds will be further assessed to ensure:

I. the price offer is made within the stipulated 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

Tenders for which financial offers were made within the maximum budget 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 following formula:

## TOTAL SCORE OF THE EVALUATED OFFER (C) =

30 \* Cheapest price offer/price of tender X

+

70 \* Total quality score (out of 100) for all quality award criteria of tender X/100



## PART 3 - HOW TO SUBMIT YOUR OFFER USING e-SUBMISSION

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. It is not possible to submit a tender through eSubmission after the time-limit for receipt of tenders indicated in the contract notice and/or the TED eTendering website.

No more than one tender and, in case of lots, no more than one tender per lot, can be considered per tenderer. If the same tenderer submits more than one tender, neither of which has been withdrawn as described below, only the latest tender will be considered. The tenderer may not refer to earlier submitted tenders to complement, clarify or correct its latest tender.

A natural or legal person cannot participate at the same time and for the same lot (if applicable) within the same procedure either as member of two or more groups of economic operators or as a sole tenderer and member of another group of economic operators. In such case, all tenders in which that person has participated, either as sole tenderer or as member of a group of economic operators, will be rejected.

Economic operators linked by a relationship of control or of association (e.g. belonging to the same economic/corporate group) are allowed to submit different and separate tenders provided that each tenderer is able to demonstrate that its tender was drawn independently and autonomously.

## **Registration in the Participant Register**

Any economic operator willing to submit a tender must be registered in the <u>Participant Register</u> - an online register of organisations and natural persons participating in European Commission's calls for tenders or proposals.

On registering each participant obtains a Participant Identification Code (PIC, 9 - digit number) which acts as its unique identifier in the Participant Register. A participant needs to register only once – the information provided can be further updated or re-used by the participant in other European Commission's calls for tenders or calls for proposals.

At any moment during the procurement procedure the Research Executive Agency Validation Services (hereafter *the EU Validation Services*) may contact the participant and ask for supporting documents on legal existence and status [and financial capacity].



The requests will be made through the register's messaging system to the e-mail address of the participant's contact person indicated in the register. It is the responsibility of the participant to provide a valid e-mail address and to check it regularly.

The documents that may be requested by *the EU Validation Services* are listed in the <u>EU Grants and Tenders Rules on Legal Entity Validation, LEAR appointment and Financial Capacity assessment.</u>

Please note that a request for supporting documents by the *EU Validation Services* in no way implies that the tenderer has been successful.

## **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 <u>EU Login</u><sup>40</sup>. In case you don't have an <u>EU Login</u>, you can <u>create an account</u> at any moment. For more information see the <u>EU login help</u>. 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.

The <u>e-Submission quick quide</u> is available after logging in with your EU Login password.

### 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 on Exclusion criteria (section A) and Confirmatory statement of resources (section C). All members of a joint tender, including subcontractors if applicable must upload the signed and dated declaration on honour using the template available <a href="here">here</a>.
- **Signed declaration on Honour on Selection criteria (section B).** In case of a joint offer from a group of economic operators, such declaration should be completed by the leading partner using the template available <a href="here">here</a>.
- **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.

For detailed instructions on how to submit your tender, consult the Quick Reference Guide for Economic Operators where you will find:

<sup>&</sup>lt;sup>40</sup> Previously called European Commission authentication system (ECAS)



- 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.** All members of a joint tender, including subcontractors must complete, sign and date the declaration on honour (sections A and C). Only the leader in a joint tender must complete, sign and date the declaration on honour (section B). The declaration on honour must be converted to PDF format and then signed by the authorised representatives with advanced electronic signature based on qualified certificates or by hand.

## Re-submission of a tender

After submitting a tender, but within the time limit for receipt of tenders, you may still submit a new version of your tender. If you submit a new Tender you must include all your Tender documents, including the Qualification and Tender documents.

You must formally notify EFSA that the previous tender is withdrawn. The notification letter must be signed by the legal representative who signed the original tender stating the call reference and the Tender ID you wish to withdraw. The notification must be uploaded in e-submission together with the new version of all tender documents. You are kindly requested to also e-mail the notification letter to EFSAProcurement@efsa.europa.eu.

#### Withdrawal of tenders

If after submitting a tender, you wish to completely withdraw your tender, you must formally notify EFSA that you wish to withdraw your submitted Tender(s) as indicated above.

## **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. It is not possible to submit a tender through eSubmission after the time-limit for receipt of tenders indicated in the contract notice and/or the TED eTendering website.

<u>Please note that you are responsible to ensure that your full tender reaches the destination in due time.</u>

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.

## Contact

 Notifications for re-submission or withdrawal of tenders must be sent to: <u>EFSAProcurement@efsa.europa.eu</u>

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

• If you need technical support on e-Submission, you can contact the e-Submission support team, from 08:00 until 20:00 CET at the following address: <a href="mailto:ec-funding-tender-service-desk@ec.europa.eu">ec-funding-tender-service-desk@ec.europa.eu</a>



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

Tenderers are requested to use this template for preparing their financial offer. In doing so tenderers confirm they are aware of the following facts:

- As referred to in part 1.4, the maximum budget EFSA has available for this assignment is 500.000 €. Any offer exceeding this maximum will not be retained for contract award.
- Prices 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 bear the risks or the benefits deriving from any variation.
- Pursuant to the provisions of Article 9 of the Italian Law n. 17 dated 10/01/2006 and under Article 151 of Council Directive 2006/112/EC, EFSA is exempt from all duties, taxes and other charges, including VAT. For this reason, all prices given in the financial breakdown should be free of VAT and other taxes or duties.
- The price offered below is understood to be all-inclusive. For example any additional costs which can be incurred by the contractor in performing the contract, such as overheads, travel, subsistence/accommodation expenses, etc. should also be factored in to the all-inclusive price. In addition, if the deliverables incorporate pre-existing rights, the tenderer should factor into their total price the cost of licensing those pre-existing rights to EFSA.
- It is the responsibility of each tenderer to ensure that the total amount of the tender inserted in the relevant field of the e-Submission application corresponds to the amount indicated in the uploaded financial offer. In case of discrepancies, only the amount indicated in the financial offer will be taken into account.

| ALL INCLUSIVE TOTAL PRICE  to be used for the evaluation and for contract implementation in the case of award. | € |  |  |  |  |
|--|---|--|--|--|--|
| Tenderer name:   |   |  |  |  |  |
| Name of person signing the financial offer:  |   |  |  |  |  |
| His/her position in the company:   |   |  |  |  |  |
| His/her signature:   |   |  |  |  |  |
| Date:  |   |  |  |  |  |



## **ANNEX 2 - DRAFT CONTRACT**

The contract which results from this procurement procedure will be based on the model annexed to these tender specifications.