



Strategische Technologien

Invitation to Participate

**Conditions of participation in the negotiated procedure
with pre-selection**

- competitive participation stage -
within the framework of the grant-funded RUMEN AI project,
- One Health Farming Solution



Kofinanziert von der
Europäischen Union

Ministerium für Umwelt,
Naturschutz und Verkehr
des Landes Nordrhein-Westfalen



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1 Invitation to participate in the procurement procedure

Dear Sir or Madam,

We hereby invite you to apply to take part in the tendering procedure for the provision of development services as part of the grant-funded project RUMEN AI, One Health Farming Solution.

Please read the requirements for participation set out in the section '3 – Assessment of Suitability' carefully, check that you meet them, and then confirm this as part of your request to participate, as described below.

You are requested to submit your request electronically to the email address provided below within the **application deadline (see below)**.

The following dates are currently scheduled for the award procedure:

Publication of this Invitation for Participation: 26.10.26

Deadline for candidates' enquiries: 09.11.2026

Responses to candidate enquiries received in good time by: 16.11.2026

Deadline of requests for participation: 23.11.2026, 12:00

Email address for your application: rumen_ai@bho-legal.com

Invitations to tender sent to selected candidates (estimated): 30.11.2026

Deadline for tenderers' enquiries (estimated): 28.12.2026

Responses to tenderers' enquiries received in good time by: 04.01.2027

Deadline for receipt of tenders: 11.01.2027, 12:00 (tenders received after the deadline may be excluded)

Negotiations, if required: January

Expected award of contract: end January / beginning Feb 2027

Scheduled start of services: Immediately after the contract is awarded

Binding period of tenders: 3 month following submission deadline

The contracting authority reserves the right to amend the above timetable and schedule if necessary. We will inform you of any such changes in good time via the **email address** we used to send this invitation to tender, provided you have not previously notified the contracting authority of a different address.

Upon receipt of the tender documents, you undertake to use all internal information received solely for the purpose of preparing the tender. Disclosure to third parties is prohibited. You must ensure that all staff members involved in the procedure are made aware of the need to comply with these regulations.

When submitting your request to participate in the tendering procedure, you must also agree to the agreement on confidentiality and the avoidance of conflicts of interest (Appendix 04a).

General information applicable to the entire tendering procedure can be found in the following sections. We strongly recommend that you read these most diligently to avoid formal errors.

The personal data you provide will be stored and processed solely for the purposes of the procurement procedure. Please note the information on data protection in section 1.13.

We would like to thank you in advance for the time and effort you will be investing in participating in this procurement procedure.

General information

1.1 Type of procurement

The contract will be awarded by way of a negotiated procedure with a competitive pre-selection phase (Section 12 UVgO), applied in accordance with No. 3.3.2 of the ANBest-EU (version of 19 May 2025, as annexed to the grant notification of 13 August 2026, ref. PLJ-ETN / IN-GG-5-052) under the conditions of Section 8(4) UVgO.

Tenders and all other communication must be submitted exclusively via **the email address rumen_ai@bho-legal.com for the submission of tenders.**

The procedure is conducted in two stages. Firstly, as part of the pre-qualification process (the current phase), the capacity of the candidates will be assessed on the basis of the requests submitted (**Stage 1**).

Once the current phase has been completed, candidates who have demonstrated their capacity will be invited to submit a binding initial tender (**second phase**).

The contracting authority reserves the right to award the contract on the basis of the initial tender alone, without entering into negotiations with the tenderers.

If the contracting authority enters into negotiations with the tenderers regarding the content of the tenders and the terms of the contract, and if, as a result of these negotiations, updated tenders are required from the tenderers, the contracting authority via the procurement office will invite the remaining tenderers to submit final tenders, whilst observing the principles of equal treatment and proportionality.

1.2 Contracting authority

The contracting authority in this procurement procedure is **RUMEN AI UG (limited liability)**, Mühlenstrasse 17, 58313 Herdecke, HRB 13559, Hagen Local Court, represented by its sole authorised signatory, the managing partner Dr José Alberto Laporte Uribe.

The contracting authority is the recipient of a grant from the State of North Rhine-Westphalia from funds under the ERDF/JTF Programme NRW for the RUMEN AI project, 'One Health

Farming Solution', and is, in this context, subject to the requirements of the ANBest-EU (version of 19 May 2025) regarding the award of contracts, which it hereby complies with. In line with the requirements of the ANBest-EU, the contracting authority applies the UVgO (Unterschwel­lenvergabeordnung) on basis pursuant to No. 3.3 ANBest-EU, with the exceptions set out therein.

1.3 Procurement Office

The procurement procedure is being conducted by **BHO Legal – Baumann, Heinrich, Ortner Rechtsanwälte Partnerschaft mbB**, Hohenstaufenring 29–37, 50674 Cologne, in the function of procurement office on behalf of the contracting authority.

1.4 Brief description of the contract

The developer must deliver 20 individually calibrated and technically verified Alpha research instruments and one gateway within 12 months of the agreed engineering kick-off.

The work must be performed along the following Work Packages (WP):

WP1 – Sensing Feasibility and Performance Qualification (TRL 4–5): Assess, calibrate and establish the performance of each sensing technology individually and in combination under representative laboratory conditions, including measurement accuracy, sensor interactions, compatibility and performance under simulated rumen conditions.

WP2 – System Integration and Deployment Readiness (TRL 5): Integrate the qualified sensing technologies into complete bolus units, develop the associated firmware, gateway, operator tools and data access, and assemble, test and qualify the integrated systems under representative laboratory conditions. Deliver fully functional bolus units and gateway ready for experimental deployment.

WP3 – Experimental System Validation (TRL 6–7): Evaluate the engineering performance of the integrated bolus units and gateway using in vivo experimental results, environmental exposure evidence and additional engineering tests, demonstrating system performance under representative operational conditions.

WP4 – Reliability and Long-Term Technology Readiness (TRL 7): Investigate reliability, degradation and failure mechanisms, carry out agreed corrective work, and deliver an evidence-based five-year performance forecast and a prioritised, costed development roadmap identifying the additional work required for future progression beyond TRL 7.

RumenAI provides scientific inputs, coordinates access to study partners and leads scientific interpretation. Study partners (i.e. not the subcontractor awarded the contract subject to this procurement) conduct the agreed animal trials and reference measurements.

The detailed technical specifications and full scope of work will be provided to qualified candidates with the invitation to tender in Phase 2. The scope is a field-evaluated Alpha research prototype, including the subsequent engineering assessment; future commercial production is outside this invitation's development scope.

The full scope of work will be sent to the successful tenderers together with the invitation to tender.

1.5 Alternative tenders

Variant bids are not permitted.

1.6 Multiple main tenders

Multiple main tenders are not permitted.

1.7 Division into lots

The subject of the tender shall not be divided into several lots.

1.8 Consortium

Where a consortium participates in this procedure, all members must be named, and one of them must be designated as the authorised representative. The division of responsibilities must be described. All members of the consortium are jointly and severally liable to the contracting authority.

Please state in your **request for participation** whether and to what extent the bidding consortium has collaborated in the past. The reasons for forming the bidding consortium must be set out on request. The contracting authority reserves the right to request a declaration of the bidding consortium signed by all members. This must be submitted immediately upon request.

The members of the bidding consortium must collectively meet the eligibility criteria set out in this invitation to tender. Please ensure you follow the instructions in the **Contractor's Details Form (Appendix 02a)**.

1.9 Use of subcontractors¹

The following areas of work must be carried out by the tenderer themselves and **may not be further subcontracted** as further described in the tender specification to be provided to the selected candidates in the next Phase:

- Calibration of individual components under WP1.

¹ Please note that, for the purposes of public procurement law, subcontractors are also undertakings with which the candidate/tenderer is affiliated under company law in accordance with Sections 15–18 of the German Stock Corporation Act (AktG).

- System assembly, integration, testing, calibration and validation under WP2–WP4, including associated adjustments, repeat testing and documentation of results.
- Final certification, supported by documented evidence, that the complete integrated system meets the agreed technical specifications, performance requirements and acceptance criteria.

These activities shall be performed by the tenderer's own personnel or, in the case of a bidding consortium, by the identified consortium members using their own personnel.

The successful tenderer shall assume overall responsibility for the complete integrated system, warrant its agreed performance under the specified operating conditions, and remedy covered defects or performance failures at its own expense in accordance with the contract. Consortium members shall be jointly and severally liable for these obligations, irrespective of their internal allocation of work.

1.9.1 Subcontractors for the purpose of demonstrating capacity (borrowing of capacity)

If you intend to (also) rely on the capacities of a subcontractor to demonstrate your capacity in accordance with **Section 3**, you must already demonstrate **in your request to participate** that the resources required for the contract will in fact be available to you. Furthermore, the subcontractor must not be subject to any of the grounds for exclusion set out in Sections 123 and 124 of the German Act against Restraints of Competition (GWB), Section 19(1) of the Act on a Statutory Minimum Wage (MiLoG), Section 21 of the Posted Workers Act (AentG), Section 21 of the Act on Combating Undeclared Work (SchwarzArbG), Section 98c of the Residence Act (AufenthG), Section 22 of the German Supply Chain Due Diligence Act (LkSG) and Article 5k of Regulation (EU) No 833/2014, as in force at the time of submission of the tender.

Please use **Appendix 03a – Declaration of Commitment by Subcontractors** – to provide evidence.

If a subcontractor does not meet the relevant eligibility criterion or if there are mandatory grounds for exclusion under Section 123 of the German Act against Restraints of Competition (GWB) or Article 5k of Regulation (EU) No 833/2014, in the version in force at the time of submission of the tender, the subcontractor must be replaced by the tenderer. If, on the other hand, there are optional grounds for exclusion under Section 124 of the German Act against Restraints of Competition (GWB) or grounds for exclusion under Section 19(1) of the MiLoG, Section 21 of the AentG, Section 21 of the SchwarzArbG, Section 98c of the AufenthG and Section 22 of the LkSG, the contracting authority reserves the right to require the tenderer to replace the subcontractor within a period to be specified.

1.9.2 Subcontracting without a certificate of capacity

Should you intend to award parts of the contract to third parties by way of subcontracting without borrowing of capacity, as you are able to demonstrate your own capacity, you must name the subcontractors before the contract is awarded and provide evidence that you have the necessary resources of these subcontractors at your disposal. Furthermore, the subcontractor must not be subject to any of the grounds for exclusion under Sections 123 and 124 of the

GWB, Section 19(1) of the MiLoG, Section 21 of the AentG, Section 21 of the SchwarzArbG, Section 98c of the AufenthG, Section 22 of the LkSG and Article 5k of Regulation (EU) No 833/2014, in the version in force at the time of submission of the tender.

Please use **Appendix 03a – Declaration of Commitment by Subcontractors** – to provide evidence.

Before awarding the contract, the contracting authority will verify whether there are grounds for the exclusion of the subcontractor. Where it turns out that there are mandatory grounds for exclusion, the contracting authority will require the subcontractor to be replaced. Where there are discretionary grounds for exclusion, the contracting authority may require the candidate or tenderer to replace the subcontractor in question. The contracting authority may set a deadline for the candidate/tenderer to do so.

1.10 Questions and comments regarding the tender documents

The tender documents comprise all documents made available to companies in connection with the invitation to participate and subsequently to the successful candidates with the invitation to tender.

The tender documents have been drawn up with the utmost care. However, we cannot rule out the possibility that they may contain ambiguities, omissions or errors. Should a company consider this to be the case, it must immediately bring this to the attention of the contracting authority at rumen_ai@bho-legal.com before submitting its tender.

This is the only way we can address any ambiguities, omissions or errors at an early stage. To enable us to identify the issue correctly, please always quote the relevant section (e.g. section, paragraph, etc.) in the tender documents, specifying the document name.

Important note: Please observe the deadline for submitting enquiries specified above in **section 1**.

Contacting the contracting authority or the procurement office by telephone is not permitted. Questions submitted in this way will not be answered.

Questions from candidates or tenderers and the corresponding answers will be sent to them via the email address to which this invitation to tender was sent, unless they have previously provided the contracting authority with a different email address for this purpose.

We therefore recommend that you check the inbox of your relevant email address regularly.

1.11 Agreements restricting competition / SME cartels

In order to combat restrictions on competition, the candidate/tenderer must, upon request, provide information as to whether and in what way they are economically and legally linked to other undertakings or whether a so-called 'project protection' arrangement² exists.

² That is to say, a commitment by the manufacturer to the candidate/tenderer in the context of the procurement procedure that it will not grant more favourable terms to any of the candidate's/tenderer's competitors, or that it will always grant the candidate/tenderer better terms than those granted to its competitors.

Under certain conditions, agreements between undertakings or the formation of SME cartels are exempt from Section 1 of the German Act against Restraints of Competition (GWB). The conditions can be found in Sections 2 and 3 of the GWB. A corresponding declaration must be included in the tender.

1.12 Language of the proceedings

The language of the proceedings is **German or English, determined by the language a candidate/tenderer chooses in its first response** under the procurement process. All documents must accordingly be prepared and submitted in German or English. Where the tenderer submits evidence in any other foreign language, they must enclose an officially certified translation into German. Please also observe the capacity requirements on language capabilities of relevant staff of the subcontractor as detailed in down in section 3.1.2.3 no. 7 – Technical and Professional Capacity.

1.13 Notes and information on data protection

The following notes and information on data protection apply exclusively to the conduct of this procurement procedure. Any processing of personal data in the context of contract performance shall be governed by a contract to be concluded between the contracting entity and the respective successful tenderer in the event of data processing on behalf of the contracting entity. The contracting entity, as the data controller within the meaning of the GDPR, collects, stores and processes personal data exclusively for the purpose of conducting the procurement procedure. The legal basis for the collection, processing and transfer of data is Article 6(1)(c) and (e) of the GDPR. Personal data is collected and processed either by the contracting entity itself or by the applicants/tenderers and transferred to the contracting entity. All personal data is treated confidentially and made accessible only to those persons responsible for processing the application for participation or the tender. This expressly includes the procurement office as a third party commissioned and bound by a duty of confidentiality for the purpose of conducting the procurement procedure. Personal data is retained in accordance with statutory requirements and destroyed in compliance with data protection regulations once the retention period has expired.

1.14 Remuneration

No remuneration will be paid for participation in this procurement procedure, including the preparation of the tender.

2 Submission of the request to participate

2.1 Form and Deadline for Submission of the Request for Participation

The request for participation must be submitted in full, in electronic form, to the procurement office's email address rumen_ai@bho-legal.com by the application deadline.

Please note that it is the candidate's responsibility to submit the request for participation in good time. Only requests for participation received electronically via the procurement office's email address rumen_ai@bho-legal.com by the deadline for application will be considered – **the date recorded by the recipient based on the time the email was received shall be decisive.**

2.2 Structure and content of the request for participation

The candidate's request for participation must contain the following statements and documents:

1. **Cover letter - Application Form (Appendix 01a) – to be used when submitting the request!**
2. **Contractor's details form together with the annexes specified therein (Appendix 02a) Important note: Please refer to section 3.1 below ('Assessment of capacity and grounds for exclusion').**
3. **Declaration of Commitment by Subcontractors (Appendix 03a), where applicable**
4. **Undertaking regarding confidentiality and the avoidance of conflicts of interest (Appendix 04a)**

The **request for participation** must be complete, must contain the information, declarations and **annexes** required in the tender documents, and must comply with all the requirements set out in the tender documents.

All **parts of the request** must be structured and clearly labelled.

3 Assessment of capacity

The procurement office will only open the requests for participation after the deadline for participation has expired and will first check them for completeness and technical accuracy. The procurement office on behalf of the contracting authority reserves the right, in accordance with the principles of transparency and equal treatment, to request that the candidate submit missing, incomplete or incorrect company-related documents – in particular self-declarations, information, certificates or other supporting evidence – within a specified period, or to complete or correct them.

Requests for participation from companies that do not meet the requirements set out below and in the following subsections shall, as a matter of principle, be excluded from the eligibility assessment, in particular:

1. Requests for participation that have not been received in the correct form or within the specified time limit, unless the candidate is not at fault for this,
2. Requests for participation which do not contain the required or subsequently requested documents,
3. Requests for participation in which changes made by the candidate to their entries are not beyond doubt,
4. Requests for participation in which alterations or additions have been made to the tender documents,

3.1 Assessment of capacity and grounds for exclusion

The contracting authority shall assess the capacity of tenderers on the basis of the supporting evidence and documents relating to capacity that are available to it, including any documents requested subsequently, and shall verify that there are no grounds for exclusion.

EXPLANATION: The contracting authority is not a public contracting authority within the meaning of Sections 99 et seq. GWB. However, within the framework of the grant-funded project under which this procurement process is being issued, it is subject to the requirements of the ANBest-EU (version of 19 May 2025, as annexed to the grant notification of 13 August 2026, ref. PLJ-ETN / IN-GG-5-052). Pursuant to No. 3 ANBest-EU, the contracting authority observes the general principles of European procurement law – in particular transparency, equal treatment and non-discrimination, as well as proportionality – and awards its contracts in accordance with the applicable rules and principles of the Treaty on the Functioning of the European Union (TFEU) and the obligation to use funds sparingly and economically. In line with the requirements of the applicable ANBest-EU, the contracting authority applies the UVgO accordingly pursuant to No. 3.3 ANBest-EU, with the exception of the following provisions, which do not apply: Sections 7, 17, 18, 19, 28(1) sentence 3, 29, 30, 38(2)–(4), 39, 40 UVgO (electronic procurement), Section 16 UVgO (occasional joint procurement; central purchasing), Section 22 UVgO (division into lots), Section 44 UVgO (unusually low tenders) and Section 46 UVgO (notification of candidates and tenderers). The contract is awarded as a negotiated procedure with participation competition pursuant to No.

3.3.2 ANBest-EU in conjunction with Section 12 UVgO, applying accordingly. Where provisions of the UVgO excepted from mandatory application pursuant to No. 3.3 lit. d) and e) ANBest-EU are nevertheless applied in these tender documents (in particular Section 44 UVgO in section 3.3 and the notification rules in section 3.4), this constitutes a voluntary self-commitment of the contracting authority that goes beyond the mandatory requirements. In order to fulfil these obligations, the contracting authority applies the requirements of public procurement law as set out herein.

To verify their capacity, companies must complete the Contractor's Details Form (Appendix 02a) and submit it with their request to participate.

3.1.1 Grounds for exclusion

The following grounds for exclusion apply accordingly:

- 1. Self-declaration regarding grounds for exclusion in accordance with Sections 123 and 124 of the German Act against Restraints of Competition (GWB)**
- 2. Self-declaration regarding grounds for exclusion pursuant to Section 19(1) of the MiLoG, Section 21 of the AentG, Section 98c of the AufenthG, Section 21 of the SchwarzArbG and Section 22 of the LkSG**
- 3. Self-declaration regarding Article 5(k)(1) of Regulation (EU) No 833/2014, in the version in force at the time of submission of the tender**

3.1.2 Capacity requirements

The candidate must also meet the following eligibility requirements and provide evidence of compliance in the required form (see Appendix 02a).

3.1.2.1 Qualifications and authorisation to practise the profession

- 1. Company profile/statement on the company structure, in particular the organisational structure, the range of services and staffing capacity, maximum two A4 pages.**
- 2. Proof of registration in a professional or commercial register or a comparable register³ (a copy of the extract must be enclosed) or a declaration that there is no obligation to register.**

3.1.2.2 Economic and financial capacity

- 3. Statement regarding turnover over the last three completed financial years, provided that such information is available.**

³ For the Member States of the European Union, the relevant professional or commercial registers and the certificates or declarations concerning the pursuit of a profession are listed in Annex XI to Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (OJ L 94, 28 March 2014, p. 65).

4. Declaration that the candidate will have, by the start of the contract at the latest, professional/public liability insurance in line with market standards covering personal injury, property damage and financial loss, specifying the sums insured.

Minimum requirements

Re 3:

Minimum 400,000.00 EUR average annual turnover (net) over the last three completed financial years.

Re 4:

The tenderer shall maintain professional/public liability insurance covering personal injury, property damage and financial loss with the following minimum sums insured:

- (1) at least 1,000,000 EUR for personal injury and property damage (combined), and
- (2) at least 500,000 EUR for financial losses, in each case per insured event.

The insurance cover must be in place by the start of the contract at the latest and must remain in force for its entire duration. Evidence shall be provided by way of a declaration to this effect (**Appendix 02a**); upon request, the tenderer shall submit the insurance policy or a current confirmation of cover issued by the insurer. By way of corresponding contractual obligations towards its subcontractors, the tenderer shall ensure that subcontractors involved in the performance of the contract maintain equivalent insurance cover.

3.1.2.3 Technical and professional capacity

5. Submission of suitable references

Candidates must submit suitable references for previously completed contracts that meet the minimum requirements set out in the tender documents. Each reference must specify:

- The client's name and a named contact person.
- The project name.
- The project period, including start and completion dates.
- A description of the services performed by the candidate, including their scope.
- The value of those services, excluding VAT, together with the currency. Where the candidate performed only part of a larger contract, the stated value must relate to the candidate's own performance.

References are suitable if the underlying projects, in terms of professional and technical capability, placed essentially similar demands on the companies as the service put out to tender and are also comparable in scale.

The **Contractor's Details Form** in **Appendix 02a** must be used for this purpose.

References completed within the last three years, measured from the deadline for requests to participate, must be submitted. The completion date is decisive.

Minimum requirements:

Re 5:

The tenderer must submit at least two suitable references relating to the development of sensor-based measurement systems.

Each reference must demonstrate one or more of the following capabilities, and the references must collectively cover all three:

- **Sensing-system and optical development:** Experience in designing, developing or adapting sensing technologies, optical components or optical measurement systems for defined measurement tasks.
- **Measurement validation:** Experience in calibrating and experimentally evaluating measurement accuracy, repeatability, stability and relevant environmental influences.
- **Miniaturisation and system integration:** Experience in developing compact measurement devices and integrating sensors, optics, electronics, data acquisition, signal processing and protective packaging.

Relevant scientific, industrial, biomedical or other sensing applications are acceptable. An identical rumen instrument or experience with every proposed sensing technology is not required. References must demonstrate comparable development demands and the relevance of the candidate's actual contribution.

For each reference, state the candidate's own tasks, contribution, results achieved and client contact.

Routine operation of commercial instruments alone is insufficient. Where the technical brief identifies a target as subject to feasibility assessment, prior achievement of that target is not required as reference evidence. This does not alter mandatory requirements or agreed acceptance criteria.

6. Sufficient workforce

A statement showing the company's current total number of employees and the number of employees in the field relevant to the contract

Minimum requirements:

Re 6:

An average total workforce of at least 5 people over the last three years.

7. Language capacity

Declaration that the personnel responsible for the delivery of the contract (including, where applicable, personnel of subcontractors within the meaning of section 1.9) have sufficient English-language proficiency for effective technical communication, coordination and documentation. Where communications or documentation are intended for the competent EFRE funding bodies or PTJ, the tenderer shall ensure that these are provided in German through suitably qualified personnel or professional translation support.

Minimum requirements

Re 7:

The personnel responsible for the delivery of the contract must have English-language proficiency at level B2 of the Common European Framework of Reference for Languages (CEFR). Native-speaker status or C2 level is not required. Proof: declaration in Appendix 02a (for subcontractor personnel: Appendix 03a). Upon request, by a recognised language certificate at CEFR level B2, a degree obtained through English-language instruction or documented professional experience of at least one year in a predominantly English-language project environment, or equivalent evidence. German is required only for communications and documentation intended for the funding bodies or PTJ. This obligation may be discharged through professional translation support. The tenderer shall ensure that the personnel responsible for the delivery of the contract (including, where applicable, personnel of subcontractors within the meaning of section 1.9) have English-language proficiency at level B2 of the Common European Framework of Reference for Languages (CEFR) or equivalent, sufficient for effective technical communication, coordination and documentation. Evidence shall be provided by means of a declaration in Appendix 02a (for subcontractor personnel: Appendix 03a). Upon request, evidence may be required in the form of a recognised language certificate at CEFR level B2 or equivalent, a degree obtained through English-language instruction, or documented professional experience of at least one year in a predominantly English-language project environment. Communications and documentation intended for the competent EFRE funding bodies or PTJ must be provided in German. The contractor may discharge this obligation through suitably qualified personnel or professional translation support. Native-speaker status or German at C2 level is not required

Companies that do not meet the eligibility criteria will be excluded from participating in the procurement procedure – Section 42(1) of the Public Procurement Regulations (UVgO) applies accordingly. The eligibility assessment involves a comprehensive review of the supporting documents and declarations provided for this purpose and a decision based on a forecast.

If the minimum requirements are not met, eligibility is deemed not to have been demonstrated. The substantive assessment also includes a corresponding examination of the existence of the grounds for exclusion set out in Sections 123, 124 of the German Act against Restraints of Competition (GWB), as well as any self-rectification by the company pursuant to Section 125 GWB. Furthermore, the assessment also includes a check to ensure that the grounds for exclusion pursuant to Section 19(1) of the MiLoG, Section 21 of the AentG, Section 98c of the AufenthG, Section 21 of the SchwarzArbG, Section 22 of the LkSG and Article 5k of Regulation (EU) No 833/2014, in the version in force at the time of submission of the tender, are not met.

We would point out that the contracting authority may rule out a candidate or tenderer's capacity if it has established that they have interests which conflict with the performance of the contract and could adversely affect it.

3.2 Assessment of the cost-effectiveness of tenders

The assessment of value for money is based on the best price-quality ratio, in accordance with Section 43 UVgO as applied in this procedure.

Price carries 30% and quality 70% of the final score.

Mandatory technical requirements are assessed separately on a pass/fail basis, not factoring into the quality and final score.

A tender must also meet every minimum quality score below to be eligible for award. A higher score for price or another quality criterion cannot compensate for a failed minimum. No additional aggregate quality threshold applies.

The requirements apply to the tender considered for award: the initial tender if the contract is awarded without negotiations, or the final tender following negotiations. The evaluation panel will agree a reasoned whole-number score from 0 to 5 for each quality criterion and record the supporting evidence.

Award component	Weight	Maximum weighted final points
Price	30%	30
Quality	70%	70
Total	100%	100

Table 1 – Price and Quality Component Weighting

3.2.1 Price

The price form to be completed will be sent to tenderers invited to submit a tender, together with the invitation to tender.

The score achieved for the price criterion (**P**) according to applicable scale is calculated using the following formula:

$$\frac{P (\text{Cheapest Offer})}{P (\text{Tenderer's Offer})} \times 30 = P$$

P (Cheapest Offer) = lowest total evaluated price

P (Tenderer's Offer) = total evaluation price of the tenderer under assessment

When determining the total evaluation price, the weightings specified in the price sheet are taken into account.

Only reasonable prices, within the meaning of a corresponding request of Section 44 of the Public Procurement Regulations (UVgO), are taken into account.

3.2.2 Quality criteria

The following quality criteria, weights and minimum scores apply. Quality weights sum to 100%; the final-weighted point maximal sum is 70 applying the weighting of Table 1, above.

Quality criterion	Maximum points	Weight	Maximum weighted final points
1 Technical approach and feasibility	5	15%	10.5
2 Measurement qualification, reliability and five-year performance assessment	5	30%	21
3 System integration, miniaturisation and robustness	5	30%	21
4 Work plan, resources and delivery risks	5	15%	10.5
5 Acceptance testing, documentation and technical handover	5	10%	7

Table 2 – Quality Criteria

For each criterion, multiply its maximum final points by the agreed score divided by 5. Add these five contributions to obtain the final quality contribution, up to 70 points. Equivalently, the raw quality score out of 100 is the sum of each quality weight (using 15, 30, 30, 15 and 10) multiplied by its score divided by 5; multiply that result by 0.70.

The final score is the price contribution plus the quality contribution, out of 100. The highest-scoring eligible tender offers the best price-quality ratio under these criteria.

The score descriptions below assess the credibility and completeness of the tender at this research and development stage. A score of 4 fully meets the stated expectations; a score of 5 requires a material, evidenced benefit within the published criterion. Length, marketing claims and unsubstantiated promises do not earn additional points. Qualification methods are assessed under criterion 2; integration design under criterion 3; and acceptance and handover arrangements under criterion 5, without scoring the same benefit twice.

1 Technical approach and feasibility

Quality weight 15%

Score	Assessment
0	No assessable technical approach, or an approach that does not address the stated development objective.
1	Generic claims with major assumptions, design choices or feasibility unexplained.
2	A partly credible approach, but important choices or dependencies remain unjustified and significant feasibility questions are unresolved.
3	A coherent, largely justified approach addressing the main requirements and dependencies, with limited weaknesses.
4	A complete, credible architecture with justified technical choices, calculations or relevant evidence, explicit assumptions and a practical approach to technical risk.
5	Meets score 4-criteria and additionally demonstrates a material improvement in feasibility or reduction of uncertainty through relevant preliminary results or well-supported alternative design choices.

Table 3 – Criterion: Technical Approach and feasibility

2 Measurement qualification reliability and five-year performance assessment

Quality weight 30%

WP1 – Sensing Feasibility and Measurement Qualification (TRL 4–5)

Assess the proposed methodology for establishing the feasibility and measurement performance of each sensing technology, individually and in combination, under representative laboratory and simulated rumen conditions. Evaluation covers calibration, reference methods, measurement uncertainty, repeatability, drift, environmental effects, sensor interactions and compatibility. The tender must distinguish preliminary feasibility targets from confirmed acceptance requirements and explain how the resulting evidence will guide subsequent system integration.

WP2 – Integrated System Qualification and Deployment Readiness (TRL 5)

Assess the proposed methodology for integrating and qualifying the complete system under representative laboratory conditions, including functional testing, measurement performance, power, communications, firmware, gateway operation and data access. Evaluation includes individual verification of all bolus units and the gateway against defined acceptance requirements, ensuring that the delivered systems are fully functional and ready for experimental deployment.

WP3 – Experimental Engineering Performance Evaluation after short in vivo conditions under research setup (TRL 6–7)

Assess the proposed engineering approach for supporting smooth system operation during the partner studies and evaluating the performance of the deployed bolus units and gateway using laboratory and in vivo study results, environmental exposure evidence and additional engineering tests.

RumenAI leads the scientific analysis using partner data, while Our research partners conduct the agreed animal studies and reference measurements. The developer remains responsible for engineering performance evaluation and technical investigation of system behaviour. These activities do not replace the engineering qualification obligations established under WP1 and WP2.

WP4 – Reliability, Degradation and Five-Year Performance Assessment after short in vivo testing under commercial setup (TRL 7)

Assess the proposed methodology for investigating reliability, degradation and failure mechanisms, conducting targeted engineering tests, implementing agreed corrective work and developing an evidence-based five-year whole-system performance forecast.

The assessment must cover sensors, packaging, electronics, power, communications, firmware/software, calibration, maintenance and replacement assumptions. It must clearly distinguish measured evidence, accelerated-test evidence and extrapolation, identify uncertainties, limitations and remaining evidence gaps, and support a prioritised, costed development roadmap.

The five-year assessment constitutes a performance projection, not a five-year operational support commitment or guarantee of lifetime performance.

Overall evaluation

All four work packages are assessed within this single 30% quality criterion, without separate subweights. Evaluation considers the technical credibility, completeness, feasibility and coherence of the proposed qualification, validation and reliability methodology across the successive development stages.

Score	Assessment
0	No assessable programme for qualification and subsequent engineering evaluation.
1	Unsupported performance or lifetime claims with no credible qualification methods, evaluation plan or forecasting basis.
2	Some credible activities, but major gaps in WP1/WP2 qualification or WP3/WP4 reliability evaluation and whole-system forecasting; reference methods, evidence or responsibilities are inadequately defined.

3	A credible plan for both stages, with limited weaknesses in sampling, uncertainty, per-unit verification, drift/fault analysis, exposure evidence or the assumptions supporting the five-year forecast.
4	A complete, coherent plan separating the two stages: suitable reference and calibration methods; justified samples, repeats and conditions; uncertainty and drift assessment; integrated-system and per-unit verification; and evidence-based fault, reliability and degradation evaluation, corrective work and a whole-system five-year forecast with explicit assumptions, uncertainty and a costed roadmap.
5	Meets score 4-criterion and additionally provides a material, evidenced increase in qualification assurance or reliability and forecasting credibility, for example through stronger independent checks, earlier drift detection, robust exposure testing or a better-supported extrapolation method.

Table 4 – Criterion: Qualification reliability and five year performance assessment

3 System integration, miniaturisation and robustness

Quality weight 30%

Score	Assessment
0	No assessable integration design, or a design that does not credibly deliver the integrated instrument.
1	A component list with little explanation of interfaces, packaging, power or complete-system operation.
2	A plausible concept with substantial unresolved gaps in interfaces, dimensions, power, thermal behaviour, packaging or robustness.
3	A coherent integration design covering the main constraints, with limited unresolved risks.
4	A complete, justified integration design covering interfaces, dimensions, power and thermal budgets, environmental protection, assembly and verification of robust complete-system operation.
5	Meets score 4-criteria and additionally demonstrates a material, evidenced improvement in robustness, power use, assembly or serviceability within scope. Further miniaturisation earns credit only where it benefits the intended use without weakening measurement performance.

Table 5 – Criterion: System integration, miniaturisation and robustness

4 Work plan resources and delivery risks

Quality weight 15%

Score	Assessment
0	No assessable work plan or resource allocation.
1	A generic timetable with undefined staff, responsibilities or dependencies.
2	Work packages and milestones are identified, but major gaps remain in availability, sequencing, dependencies or contingencies.
3	A realistic plan with clear responsibilities and resources, with limited weaknesses in dependencies or risk management.
4	A fully resourced plan with committed named personnel or roles, allocated effort, achievable milestones, dependencies, decision points and practical contingencies covering delivery and subsequent evaluation.
5	Meets score 4-criteria and additionally provides material, evidenced additional delivery assurance, such as committed backup capacity, earlier resolution of critical dependencies or a credible and resourced recovery plan.

Table 6 – Criterion: Work plan resources and delivery risks

5 Acceptance testing documentation and technical handover

Quality weight 10%

Score	Assessment
0	No assessable acceptance or handover arrangements.
1	Only a generic final report or demonstration, without defined acceptance evidence or handover content.
2	Some tests and deliverables are identified, but major gaps remain in requirements traceability, acceptance responsibilities or documentation.
3	A workable acceptance and handover plan covering the main deliverables, with limited gaps in reproducibility, completeness or issue resolution.

4	A complete requirements-to-evidence matrix, clear acceptance responsibilities and process, defect resolution and retesting, and organised English-language design, software, data and operating documentation with the agreed technical assets and handover.
5	Meets score 4-criteria and additionally provides a material, evidenced improvement in handover usability or reproducibility, for example through useful automated checks, a reproducible data-analysis package or effective operator training.

Table 7 – Criterion: Acceptance testing documentation and technical handover

The evaluation score for quality of each listed criterion is derived from the assessment of the technical tenders to be submitted.

If a tender receives 0 points in the technical assessment in any of the scores for a quality criterion listed in Table 2, above, it will be excluded from further assessment. If the Maximum weighted final points for Quality reached by the tender remain below 35 points, the tender will also be excluded from further assessment.

3.3 Unusually low tenders

The following provisions on unusually low tenders apply as a voluntary self-commitment. Section 44 UVgO is excepted from the corresponding application by No. 3.3 lit. d) ANBest-EU (status May 19. 2025). If the price or the costs of the tender appear unusually low in relation to the service to be provided, the contracting authority shall require the tenderer to provide clarification, in accordance with Section 44 UVgO, applied accordingly and on a voluntary basis..

As part of this clarification process, the contracting authority shall examine the composition of the tender and take into account the documents submitted.

If, following this examination, the contracting authority is unable to satisfactorily explain the low level of the price or costs offered, it may refuse to award the contract to that tender. It shall reject the tender if it has established that the price or costs of the tender are unusually low because obligations within the meaning of Section 128(1) of the German Act against Restraints of Competition (GWB), mutatis mutandis, have not been complied with; see Section 44(3) of the Public Procurement Ordinance (UVgO), mutatis mutandis.

If the contracting authority determines that a tender is abnormally low because the tenderer has received state aid, the contracting authority shall reject the tender if the tenderer is unable to provide evidence within the specified time limit that the state aid was lawfully granted, cf. Section 44(4) of the UVgO mutatis mutandis.

3.4 Notification

The contracting entity intends to inform unsuccessful candidates/tenderers of the award of the contract or the cancellation of the procurement procedure. by way of courtesy. This notification is made voluntarily and does not constitute a legal obligation. Section 46 UVgO (notification of

candidates and tenderers) is excepted from the corresponding application by No. 3.3 lit. e) ANBest-EU. The notification provided in this section therefore likewise constitutes a voluntary self-commitment beyond the mandatory requirements. In particular, no rights or claims of candidates or tenderers – in particular no claim to notification, to information on the reasons for the decision or to a review procedure – can be derived from it. With their participation in the project, candidates and tenderers waive any claims for notification.

4 List of Appendices

1. Appendix 01a – Cover Letter - Application Form - Request for Participation TEMPLATE
2. Appendix 02a – Contractor's details form
3. Appendix 03a – Declaration of Commitment by Subcontractors
4. Appendix 04a – Undertaking on confidentiality and avoidance of conflicts of interest

NOTE: The contracting authority will provide the documents required for the submission of tenders together with the invitation to tender, i.e. in the second phase.