



## Invitation to Tender Specification

Development of Training Materials and  
Technical Tests for the Industrial Drone  
Operations  
(Ref: RR 01-22)

## Contents

Invitation to Tender Specification.....	1
Development of Training Materials and Technical Tests for the Industrial Drone Operations (Ref: RR 01-22) .....	1
1. Background .....	3
2. Definitions .....	3
3. Scope.....	5
4. The Services .....	6
6. Expenses.....	7

The Engineering Construction Industry Training Board (ECITB) is pleased to invite you to tender for the above. Full details are included in these documents, which describe the services which are required, the basis of tendering and the processes to be followed in the submission of tender offers.

## 1. Background

The ECITB has developed Industrial Drone Operations (IDO) training standards with the guidance and assistance of industry experts. In order to ensure consistency and quality the ECITB requires the development of both training and assessment materials to ensure the courses certificated by the ECITB maintain high standards.

The materials developed by this tender will be licenced by ECITB and provided to our Approved Training Providers (ATPs) for delivery of the Basic IDO training course and the subsequent assessment of the learners. The materials developed must include all necessary guidance materials to ensure consistent delivery and assessment.

For the assessment of the learner the ECITB will utilise its established testing system that enables a wide variety of question types and practical assessments for a range of occupation related activities to will deliver the knowledge and practical assessments for the IDO training standards.

The complexity and difficulty of the questioning must rigorously test the knowledge and understanding of the content of the training course and be contextualised to the activities undertaken on an ECI site.

This tender concerns only the 'Basic Course' which in the 1<sup>st</sup> stage for developing a competent industrial Unmanned Aircraft System (UAS) operator to work within the Engineering Construction Industries (ECI).

## 2. Definitions

In this specification the following terms shall have the following meanings:

**"Assessment"** means the standard a candidate is expected to meet to demonstrate that the learning outcomes have been achieved in order to have passed the training course

**"Candidate guidance notes"** means a booklet supporting, clarifying and expanding on the content of the course for the learner's reference. It may include material which there is no time to cover in full on the course, but which the candidate can use as required.

**"Guidance"** means written instructions (provided electronically) in the form of either notes or a manual to ensure the correct delivery of presentation materials, assessment activities including tests and administration of exercises during the training course. These will be provided to the ATP for the delivery of the IDO training course and assessments.

**"Industry standard practices"**

Means including appropriate guidance documents that require the candidate to complete and adhere to industry standard practices, to include but not limited to the following:

- a. Permit and authorisation processes and procedures
- b. Complete pre-work risk assessment processes
- c. Adhere to procedures and complete documentation as appropriate
- d. Reporting of problems/defects etc.
- e. Production of images related to the practical activities in a digital format and transferred

**“Learning outcomes”** means what a candidate is expected to know, understand or be able to do as the result of a process of learning

**“Model answer”** where a question has been written as a “free text” or “essay” question then the provision of the correct answer must be provided, (the examiner will be required to review the learners answer against the model). The correct definitions must be used and colloquial language avoided.

**“Question”** means a sentence or phrase used to test the learner’s knowledge and understanding.

Acceptable types of Questions are as follows:

1. Drag-and-drop words or images
2. Essay question
3. Fill-in-the-blank
4. Hotspot:
  - a. selection of a correct area of an image
  - b. selection of multiple correct areas of an image
5. Matching
6. Multiple-choice: a multiple-choice question with several potential answers, the preferred number of answers is 4, but other numbers of answers are acceptable if required by the question.
  - a. Multiple answers with 1 correct answer
  - b. Multiple answers with multiple correct answers
  - c. Images in the question (file size will be specified upon contract award)
7. Multiple response (score per choice)
8. Knowledge matrix
9. Survey matrix
10. Likert scale
11. Numeric question
12. Pull-down list/drop-down list
13. Select-a-blank
14. Rank-in-order
15. True/False
16. Yes/No
17. Word response/text match
18. Job task analysis
19. File upload
20. Explanation

In general, the answers should be structured as detailed in a guide provided by the ECITB. Question banks will be delivered to the ECITB in a format specified and provided by the ECITB.

Unacceptable questions include:

- Identical questions with identical answers
- Identical questions with different answers

Acceptable questions may include:

- Generic questions when referring to an image such as ‘identify the image shown in the image’
- Questions of a similar nature, but structured differently (for example multiple questions on the assembly of the UAS)

The questions must be developed in line with the training standard which will be supplied by the ECITB upon successful award of the contract.

All materials developed should be verified as correct and relevant to the engineering construction industry.

**“Question Banks”** means groups of questions, which may be organised by learning outcome and training standard, from which the ECITB test system selects questions at random.

**“Test”** means an ECITB Technical Test delivered through the ECITB online web portal which contains 2 parts:

- Part 1- an online questions
- Part 2- a practical assessment, described in a guidance document which is printed by the online system and used by an ECITB approved examiner to deliver and observe a candidate completing a piece of practical work.

**“Test Documentation”** means a description of a practical test presented in a standard ECITB format which includes:

- Assessment overview
- Examiner instructions including guidance of how to conduct the test along with the preferred order of activities and actions
- Candidate instructions
- Drawings/diagrams if relevant
- Specialist documents if needed – e.g. Risk assessments, flight plans etc.
- Examiner Results Sheet (marking guide for the practical test) including scoring.

ECITB approved forms will be provided on award of the contract, a sample will be provided for the tender

**“Training Standard”** means a document which details the knowledge, skills and behaviours necessary to satisfy a specific subject matter area. This detail is presented through the use of descriptive statements referred to as learning outcomes (LO), enabling objectives (EO) and key learning points (KLP).

### 3. Scope

The Consultant will provide:

- Training materials including presentations, handouts, exercises and assessments
- Questions
- Guidance documents

Where a tenderer is unable to satisfy the full technical range of this specification, they are welcome to form alliances with other consultants; however only one consultant can lead the bid and hold the contract with ECITB.

ECITB will determine the acceptability of any supplied materials.

## 4. The Services

1. The consultant will create the training materials and exercises which will develop and reinforce the knowledge, understanding and practical capabilities required for a pilot of a UAS course in the ECI context. This will include development of the following:
  - a. Pre-course materials and/or identify suitable online resources for the development of the required prerequisite skills and knowledge
  - b. Detailed lesson plans
  - c. Comprehensive presentations (this may include graphical content etc)
  - d. Guidance and explanatory notes for delivery
  - e. Handouts
  - f. Exercises to develop and reinforce the skills and knowledge
  - g. Formative assessments which the learner must undertake during the training course.

**Note:** All the materials must be produced electronically and utilising readily available software which must not prohibit the delivery of the materials in the widest possible context.

2. The Consultant will develop both knowledge and practical tests for the IDO training standard in various formats relevant to the Learning outcomes as detailed in the training standard.
  - a. 320 questions testing the knowledge of the TS contents
  - b. 40 questions related the practical flying test
  - c. The questions must be provided in MS Excel in a format provided by ECITB and must identify the learning objective they are written to assess
  - d. All guidance documents and questions must comply with current UK regulations, legislation, and approved codes of practise or standards as appropriate
  - e. The tenderer must provide the guidance documents and marking scheme for the practical test including instructions for the examiner
  - f. The tenderer must provide diagrams and instructions of how to create the practical test, which must include detail drawings and/or examples of the required facilities
  - g. The tenderer must provide guidance documents on the content of the pre-flight risk assessment and procedures including a marking scheme and instructions for the examiner
3. All materials are independently proofread to ensure correct grammar, spelling, punctuation and occupational context prior to delivery to the ECITB. Tenders should identify how this requirement is to be achieved.

The tenderer should allow for meetings with the ECITB Project Manager on a monthly basis as well as frequent contact via telephone/online to include a review of the proposed training and test recommendations to agree the development with ECITB.

Additional requirements may be identified within the training standards.

**Tenders should include a fixed price for the work listed under paragraph 4.0. This price should be broken down into a series of appropriate milestones against which progress can be measured and payments made.**

## 5. Additional Services

ECITB may request Additional Services (as defined in the Form of Contract) from the Consultant.

Annual updates for 3 years (to December 2024) as required (such as changes in legislation and any user feedback).

Develop tests for additional ECI occupations.

Attend additional meetings with ECITB.

**Tenders should include Day Rates for the provision of Additional Services. Where appropriate identify different rates, e.g. rates for attending meetings, development of additional technical tests, or support activities.**

## 6. Expenses

Any expenses incurred by the Consultant in the performance of the contract, such as hotel costs, pilot costs and air/rail travel, will only be reimbursed by ECITB if:

- they are reasonable
- they are agreed in advance with the Project Manager
- claims for such expenses are accompanied by valid receipts

Agreed exceptional expenses must be inclusive of VAT

It is the ECITB's policy to agree exceptional expenses on the following basis:

- Rail journeys - Standard Class
- Car mileage - Not to exceed 45p per mile, all inclusive
- Airfares - economy class
- Taxis/Hire Cars should only be used if other forms of public transport are not available. (Hire cars, if used, must not be retained unless retention is a cheaper option than any necessary use of taxis)
- Hotels - Up to 3 star

**Agreed expenses will be reimbursed on an 'as incurred' basis and should not be included in any tender costings.**