## Serapis Tasking Form

## **Tasking Form Part 1:** (to be completed by the Authority's Project Manager)

|  | Lot 6 Frazer-Nash From: Dstl<br>Consultancy Ltd   |                       |            |  |  |  |  |  |  |
|--|---|-----------------------|------------|--|--|--|--|--|--|
| Any Task placed as a result of your quotation will be subject to the Terms and Conditions of Framework Agreement Number: |   |                       |            |  |  |  |  |  |  |
| LOT 6 DSTL/AGR/SERAPIS/UND   | /01   |                       |            |  |  |  |  |  |  |
| VERSION CONTROL  |   |                       |            |  |  |  |  |  |  |
| FINAL  |   |                       |            |  |  |  |  |  |  |
| REQUIREMENT  |   |                       |            |  |  |  |  |  |  |
| Proposal Required by:  | 31/1/2022   | Task ID Number:       | U69        |  |  |  |  |  |  |
| The Authority Project<br>Manager:  | [REDACTED]  | [REDACTED]            |            |  |  |  |  |  |  |
| Task Title:  | AI Data Innovation Hub  |                       |            |  |  |  |  |  |  |
| Required Start Date:   | 23/05/22  | Required End<br>Date: | 31/03/2025 |  |  |  |  |  |  |
| Requisition No:  | RQ000008166 Budget Range [REDACTED].  |                       |            |  |  |  |  |  |  |
| TASK DESCRIPTION AND SPEC  |   |                       |            |  |  |  |  |  |  |
| Serapis Framework Lot  | <ul> <li>Lot 1: Collect</li> <li>Lot 2: Space systems</li> <li>Lot 3: Decide</li> <li>Lot 4: Assured information</li> <li>Lot 5: Synthetic environn</li> <li>Lot 6: Understand</li> </ul> |                       |            |  |  |  |  |  |  |

### Statement of Requirements (SOR)

As part of an initiative to establish a Defence AI Centre Dstl has been mandated to ensure 'Defence has established 2 "AI innovation hubs" at leading AI Universities around the UK.'

The vision for the Hubs is to establish research centres of excellence that can address AI and Data science related issues to expand the capability of the MOD through advancing emerging research ideas to the point where they can be developed and deployed.

#### The aim of this task is:

To establish and operate an innovation hub within an academic environment to address issues related to data readiness and exploitation for AI and Data Science purposes.

#### Specific outcomes sought through this task are:

Key success criteria for the hub currently include (but will be developed and refined with the team and by the the Hub steering group and confirmed with the SRO by the second meeting of the steering group (see below):

- 2 Hubs (of which one is the subject of this SOR);
- Each hub will demonstrate that it:
  - addresses, where appropriate, the cultural, behavioural and technological aspects of the challenges it undertakes;
  - o demonstrates effective multi-disciplinary and inter-disciplinary working;
  - demonstrates, through its behaviours, a culture of openness, collaboration, frequent, open and honest communications, sharing good practice and lessons from 'failure', self-reporting lowlights and highlights, and a willingness to respond at pace;
  - $\circ$   $\,$  has produced exploitable outcomes from task, and ended tasks early that were not showing promise;
  - has established routes to secure additional funding and has undertaken bids to demonstrate its commitment.

#### **Background and Modus Operandi**

In line with this mandate, Dstl's intent is to develop a hub and spoke model with a central innovation hub and satellite innovation hubs to maximise research for UK Defence and Security. This will comprise a central innovation hub based at the Alan Turing Institute and, initially, a single satellite innovation hub based at a regional university (or confederation of universities). This model, if successful, will then be the basis for further satellite innovation hubs.

The Turing innovation hub will act as the central hub with spokes leading to its network of partners and other allied universities as well as to the other satellite innovation hub. The Turing innovation hub's primary responsibility will be performing horizontal (underpinning) research to generally increase the capability of Defence and Security in Al<sup>1</sup>.

The Satellite innovation hub<sup>2</sup>, and any follow-on satellites will conduct vertical (thematic) research. The themes will be broad topic areas such as Data, Validation and Verification, Computational Social Science, Edge Computing, etc.). The first Satellite and the focus of this SOR will be to establish and operate an innovation hub on the theme of Data<sup>3</sup> (including synthetic data) in the context of AI and will explore areas including but not limited to:

- design,
- capture,
- manipulation and wrangling,
- correlation and conflation,
- description and comprehension,
- nature (form, bias, quality, etc.),
- data labelling,
- Sparse data,
- synthetic data production,
- etc.

It will do so through the lens of both technical and cultural aspects and the focus will be on data, not databasing or software architectures. The primary purpose of the Hub is therefore to develop culture, behaviours, methods and tools to aid the use of data within AI projects, and to determine and develop "best practices". It is not aimed at producing data, although this could be a secondary outcome where such data is required by the research.

<sup>&</sup>lt;sup>1</sup> Where the term AI is used it can generally be read to mean AI and Data Science.

<sup>&</sup>lt;sup>2</sup> A satellite can be a single institution or a collaboration between institutions although a lead institute must be identified.

<sup>&</sup>lt;sup>3</sup> The theme has been chosen on the basis that data has been identified as a significant blocker to advancing AI work, it is also a generally under-researched area and, ironically, the availability of data may not be an impediment, as it is in other areas.

There is likely to be some cross-over between the satellite's vertical and Turing's horizontal research approaches, which will be actively encouraged and where there are opportunities for the work of one innovation hub to reinforce or support the work of another this will be a benefit.

The relationship between the Turing innovation hub and the satellite innovation hub will be primarily one of exchange and mutual support with a member of Turing being a member of the Satellite innovation hub governance and oversight board for consistency (see below). Thus interactions will be of the following nature:

- Visibility of the current or planned research conducted by each;
- Mutual support and partnered research where appropriate;
- Knowledge exchange;
- Feeding research outputs to the Satellite where appropriate;
- Staff exchanges where appropriate.
- Sharing of best practices

### Funding

There is funding set aside for the first three years and ideally this will be extended to five years, subject to future funding approvals.

The funding available to each Hub is as follows:

| FY 22/23 | £800K |
|----------|-------|
| FY 23/24 | £1.5M |
| FY 24/25 | £1.5M |

The innovation hub shall strive to become partially self-sustaining and identify mechanisms by which to obtain funding through additional sources. Dstl can work with the innovation hub to aid this process, but the innovation hub shall take responsibility and leadership in this area. Funding sources can include those from organisations such as the Research Councils and other government funding but will not be permitted to include industry in order to avoid issues over IP. The governance model will ensure that tasks are allocated equitably and proportionately based on the scale of funding provided. Success in establishing such a model will be assessed by having in place the mechanisms and drive to secure other funding such that the hub could become fully self-sustaining should MOD funding not be extended.

## **Hub Principles**

The following principles will apply to both the Turing Innovation Hub and the Satellite Data Innovation hub.

## **Working Principles**

Work will routinely be conducted at [REDACTED]. There may be occasions when work can be conducted at [REDACTED] or even higher, dependent on staff clearances and secure premises accredited by MOD. This is capability though is not a mandatory requirement.

The Data Innovation Hub will have suitable freedom and will be encouraged to explore the thematic area however they see fit and bounded only by the need to ensure the research is addressing the needs and priorities of Defence and Security. The basis of these freedoms are primarily technical in terms of given a broad problem (for example data wrangling) they will permit the Hub to determine the best course of action to address the problem and the nature of the outcomes. These freedoms will not be without some controls and it will be necessary to produce a research plan and approval sought from the Technical Oversight Group (see Governance below) which will also take into account priorities and resourcing. The basis for this approach is to maximise the ability of the Hub to use its expertise to best effect and not restricted by what be narrower views of Dstl.



### Tasking

A problem book will be jointly developed between Dstl and the Hub and tasks based on addressing these problems jointly agreed. The problems themselves will be reasonably high-level and as indicated above once selected the Hub will have the freedoms to address the problem as it see best. A problem may be addressed either fully or partially and by one or more tasks. The overall aim shall be to significantly advance solutions towards the selected problems such that a solution can either be dismissed and not further developed, or advanced to a point where it can be passed to Dstl/Defence Digital (or other developers) for advancement to operational development. Routes to enable this transition from research to development and operationalisation will mature as the Defence AI Centre establishes itself.

Once tasking is selected the Hub will develop a planned approach with high-level outputs (accepting these may change as the work develops). Each Hub task will be allocated a Dstl technical Partner (TP). Unless it is not deemed practicable, TPs will be embedded within the Hub task team, otherwise they will maintain close contact with the team to understand progress and assist where necessary.

Some indicative problem areas are:

#### Promoting reuse through Design

Data is usually designed with a single application in mind with little thought of it being re-used for other purposes later. However, such focussed designs can make downstream re-use difficult if not unviable. How can designers be encouraged to design data with re-use in mind? What factors of data design contribute to re-usability, what factors inhibit it? What are the design trade-offs that can be made? How can the costs of doing so be minimised? What guidance can be constructed to aid the designer?

#### Data Discovery and Description

Finding and then understanding data to be used for AI can be hard. There are a number of factors that contribute to this. The first of this is that the data's metadata and other documentation will be created by the data producer with a producer's perspective. Thus the much of the metadata will represent statements of data quality as measured against the producer's data specification. An end user though is likely to be more interested in fitness for purpose than data quality, this is not to say data quality will not be of interest, but that if the data is not fit for purpose then the quality is irrelevant. For more metadata is often complex, may not be completely populated and documentation may be inadequate or inappropriate. Thus, both technical and behavioural/cultural challenges exist. How can data be characterised such that it is easier for a potential user to determine it is fit for their purpose? How can producers be encouraged to apply such characterisations? Can metadata be simplified so that it is more likely to be completed and correctly populated? (Another way to pose this is to ask: what metadata is useful to potential users rather than the producer?)

Related questions include: How can bias within data be clearly described? How can the semantics of the data be clearly stated and in a manner understandable to potential users?

#### Data Wrangling

Data Wrangling is expensive, time consuming and laborious. Each dataset (or sets of conflation is required) when encountered for the first time needs to be treated in a unique fashion. Data engineers involved in data wrangling have no real methodological guidance and few tools to help them, often resorting to the use of spreadsheets and programming languages such as Python and R. Such approaches can often introduces error and be poorly documented.

Can a data wrangling methodology and, or handbook be developed? What tools are required and how can ten form and integrated solution? How can people who have to use spreadsheets or R/Python (because it's all the tools they have) be given support to reduce error and encourage good documentation?

Other example areas of research could include synthetic data, data tagging/labelling and approaches to sparse data approaches such as low-shot learning.



### People

A multi-disciplinary approach will be encouraged and teams shall be staffed with people with appropriate skills to carry out the task in hand. Peer review will confirm and endorse the team approach and construct through approval of the research plans.

Where appropriate Dstl staff may form part of the Data Innovation Hub research team. The innovation hub may also use academics from other innovation hubs or institutions as visiting fellows.

Where appropriate Innovation hub staff will be encouraged to gain SC clearance. Although for the most part this should not be necessary for their day to day work (unless in exceptional circumstances) it will enable the context of their work to be better understood. In certain circumstances DV clearance may be sought.

| REDACTED SECTION] |
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## Exploitation and outcomes

The outcomes of any work will identify, develop and establish new cultures, behaviours, methods, algorithms or technologies related to the application of data to AI. These outputs will be fed into further research within the Innovation hub (or other Innovation Hubs), at Dstl or some other MOD or UK government facility; or be integrated into the development of operational systems or working practices.

Where an output is a new method or algorithm developed and demonstrated through software, the emphasis will be on describing the detail of the method or algorithm and the advancement achieved rather than the software, although where there is intent to reuse the software it shall be documented to an standard sufficient to enable a competent programmer to understand it.

The production of peer reviewed academic papers will be encouraged, as will other means to publicise or exploit outputs.

The Intellectual Property (IP) for outputs will normally remain with the Innovation hub although Dstl will require full exploitation rights within UK Government and for UK Government purposes. The Innovation Hub will be encouraged to exploit the IP it holds to benefit the Defence community, the Innovation Hub and its host institution(s) and the wider UK industry.

As outputs become firm the Hub will be responsible for constructing an exploitation plan which will be endorsed by the Technical Oversight Group.

## **Additional Activities**

Other activities that the Innovation hub may undertake, either directly in support of addressing a challenge, or as an additional task, include:

- Production of Data;
- Provision of training (this will be funded separately) and other means of skills transfer to Dstl staff;
- Organisation and running of hackathons;
- Organisation and running of specialist workshops;
- Building communities of interest with UK-Government, industry and academia.



• Engagement of PhD students (funded separately) – associating the Hub with existing PhD initiatives such as centres for Doctoral training is seen as desirable.

## Governance and Oversight

The Innovation hub will be allowed the freedoms to develop the approaches they feel best to address the tasks they are given and governance generally will be 'light-touch' to encourage innovation. However, appropriate governance is, though, necessary to ensure that the overall outcomes desired by MOD for the hub are realised and the hub operates cost-effectively. The following governance will therefore be put in place.

## **Innovation Hub Steering Group**

This group will have strategic oversight of the Innovation Hub. Its membership will comprise members drawn from Dstl's AI and Autonomous Systems Experimentation Hub (Dstl AI Hub), Dstl programmes with an interest in the thematic area, the DST, Defence Digital; the Turing Innovation Hub will also be represented. The main aim of the Steering group will be to identify the problems to be addressed and to monitor at a high-level the overall performance of the Innovation Hub. Performance will be measured using a number of quantitative and qualitative metrics. These are likely to include (subject to further development):

- Publications (including visibility of peer review of the publications, both successful and unsuccessful).
- Specific deliverables and products (i.e. material passed to Dstl for use) based on review by Dstl (acceptance/rejection).
- Planned publications and outputs measured by relevance and practicality.
- Exploitation opportunities.

It will meet formally once a year where the Innovation Hub will give a summary report of progress, achievements, issues etc.

## **Innovation Hub Technical Oversight Group**

The primary role of this group is to select and prioritise tasks to be undertaken by the Innovation hub and to review progress. Initially this group will meet prior to when the Innovation Hub becomes operational to populate and select the initial tasks from the problem book and finalise Hub assessment criteria. After that the group will convene as and when necessary and every six months. Membership will be drawn from the Dstl Al Hub, Dstl problem owners and Hub leadership. The Group will be chaired by the senior Dstl lead.

As well as selecting the problems to be addressed the Group will also be responsible for monitoring progress of tasks and may determine to terminate tasks not deemed to be fruitful or increase resourcing to accelerate tasks seen to be likely to produce positive outcomes. The Group may also deem a task output to be ready for exploitation.

The group will review overall progress and technical quality of the tasks in hand using the same criteria as the Steering Group. This will be without meeting for the three monthly reporting and through a formal meeting of the group every 6 moths. This Group can decide to terminate work that is not deemed fruitful; funding so released can then be available for other tasks. Where there is dispute the decision with be that of the Dstl chair. A positive assessment will trigger a 3 monthly payment in arrears to the hub. A less positive assessment will require the Hub to address the issues in hand; serious issues will result in payments being delayed until they are addressed.

Lastly, the Group will approve Hub initiatives to secure additional funding from bodies such as the Reserch Councils to ensure that only initiatives that are within the scope of the Hub and beneficial to defence and security are developed by the Hub. Such initiatives may be actively supported by Dstl.



## Provision of staff, equipment and facilities

The funding provided is to cover the costs of executing the research tasks and management of the Hub. The construction of the Hub, it's form, staffing, equipment and facilities are the responsibility of the university/universities operating the Hub.

☑ Lot Lead to recommend

□ Single Source / Direct Award

□ Other\*

#### Pricing:

☑ Firm Pricing
□ Ascertained Costs\*

Firm Pricing shall be in accordance with DEFCON 127 and DEFCON 643

Ascertained Costs shall be in accordance with DEFCON 653 or DEFCON 802.

\*only at Authority's discretion

Task IP Conditions

| guide to identify your information and IP   | Summary of the Authority's rights in foreground IP (IP<br>generated by the supplier in performance of the<br>contract)                      |
|---|---|
| DEFCON 703  | Vests ownership with the Authority  |
| DEFCON 705 Full Rights 🖂  | Enables MOD to share in confidence as GFI or IRC under<br>certain types of agreements.<br>Can be shared in confidence within UK Government. |
| OTHER IP DEFCONS: 14*       □, 15*       □, 16*       □, 90*         90*       □, 91*       □, 126*       □ | Generally only suitable for deliverables at TRL 6 and above.  |
| BESPOKE IP Clause   *   | Details to be added and agreed by IP Group  |

\* Do not use without IPG advice and approval

Please state in this text box if MOD or the customer has a requirement a) that one or more Other Government Departments is able to share confidentially with their own suppliers, b) to publish but you do not think there is a requirement to own or control the deliverable, or c) to share under a procurement\* Memorandum of Understanding (MOU).

If any of these three issues applies, please contact IPG for advice before completing this form. \*Listing research MOUs is not required, but can be a helpful courtesy to the supplier.

### DELIVERABLES

| <u>Ref</u> | <u>Title</u> | <u>Due by</u> | <u>Format</u> | <u>TRL</u> | Expected<br>classification<br>(subject to<br>change) | Information<br>required in<br>deliverable | <u>IPR</u><br>DEFCON |
|------------|--------------|---------------|---------------|------------|--|---|----------------------|
|------------|--------------|---------------|---------------|------------|--|---|----------------------|



| D001 | Kick off/Initial<br>Problem Book<br>handover   | T+1M                                   | Meeting            | N/A | [REDACTED] | Review of plans, risks and issues   | 705 FR |
|------|--|--|--------------------|-----|------------|---|--------|
| D002 | 3 Monthly<br>update, Every<br>other occurance<br>replaced by<br>TOG update<br>(D003) | T+3M to<br>END                         | Meeting            | N/A | [REDACTED] | Progress,<br>Highlights, low<br>lights, review of<br>risks and issues.  | 705 FR |
| D003 | Reporting to<br>Innovation Hub<br>Tasking and<br>Technical<br>Oversight<br>Group     | T+1 and<br>then<br>every 6<br>months   | Meeting            | N/A | [REDACTED] | Report on technical<br>progress<br>Recommendations<br>for change / future<br>tasking<br>Exploitation<br>opportunities   | 705 FR |
| D004 | Annual<br>review/Innovation<br>Hub Steering<br>Group                                 | T+13 and<br>then<br>every 12<br>months | Meeting and report | N/A | [REDACTED] | Statement of work<br>underway and work<br>completed.<br>Exploitation<br>realised and<br>planned<br>Statement as to the<br>effective operation<br>of the Hub<br>Publications listed<br>(published,<br>preparing and<br>planned)<br>Meeting minutes   | 705 FR |
| D005 | Initial Operating<br>Capability (IOC)<br>reached                                     | T+4                                    | Operational Hub    | N/A | [REDACTED] | IOC defined as:<br>Hub underway with<br>initial tasks, staff<br>assigned and work<br>in progress. The<br>governance in<br>place and<br>assessment criteria<br>agreed. The<br>Steering Group are<br>content that the<br>current<br>publications,<br>outputs, and plans<br>indicate that IOC<br>has been reached. | 705 FR |
| D006 | Full operating<br>Capability (FOC)<br>reached  | T+12                                   | Operational Hub    | N/A | [REDACTED] | FOC defined as:<br>Hub operating at<br>capacity with a full<br>set of tasks each<br>with staff assigned.<br>Some concrete<br>outcomes have  | 705 FR |

|  |  |  |  | been produced<br>from the initial tasks<br>and evidence of<br>sustainability exists<br>(such as a<br>sustainability plan<br>or bids successfully<br>won or in progress).<br>The Steering Group<br>are content that the<br>current publicatios,<br>outputs, and plans<br>indicae that FOC<br>has been reached. |
|--|--|--|--|---|
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#### DELIVERABLE: ACCEPTANCE / REJECTION CRITERIA

Unless otherwise stated below, Standard Deliverable Acceptance / Rejection applies. This is 30 business days, in accordance with DEFCON 524 Rejection, and DEFCON 525 Acceptance.

#### Standard Deliverable Acceptance / Rejection:-

Yes ⊠ (DEFCON 524 Rejection, and DEFCON 525 Acceptance)

No  $\Box$  (if no, please state details of applicable criteria below)

#### Deliverable Acceptance / Rejection Criteria:-

Additional to above and for clarity: Technical documents shall be of a sufficient standard to pass peer review. Any software shall be documented to a standard sufficient to enable a competent programmer to understand the processes.

#### **Government Furnished Assets (GFA)**

**ISSUE OF EQUIPMENT/RESOURCES/INFORMATION/FACILITIES** (*if not applicable, delete table and insert "None" in this text box*)

| <u>Unique</u><br>Identifier/<br>Serial No | Description             | Classification | <u>Туре</u> | <u>Available</u><br>Date | <u>lssued</u><br>by | <u>Return</u><br>or<br>Disposal<br>Date | Any<br>restrictions? |
|---|-------------------------|----------------|-------------|--------------------------|---------------------|---|----------------------|
| GFA1                                      | Initial Problem<br>Book | [REDACTED]     | Document    | May 2022                 | Dstl                | Project<br>end                          | No                   |
|   |                         |                |             |                          |                     |   |                      |
|   |                         |                |             |                          |                     |   |                      |

#### **QUALITY STANDARDS**

- □ **ISO9001** (Quality Management Systems)
- □ **ISO14001** (Environment Management Systems)
- □ **ISO12207** (Systems and software engineering software life cycle)
- □ **TickITPlus** (Integrated approach to software and IT development)
- $\boxtimes$  **Other:** technical outputs to be assessed by peer review.



#### SECURITY CLASSIFICATION OF THE WORK

#### [REDACTED]

TASK CYBER RISK ASSESSMENT. (In accordance with <u>DEF STAN 05-138</u> and the <u>Risk Assessment Workflow</u>)

| Cyber Risk Level          | [REDACTED] |  |
|---------------------------|------------|--|
| Risk Assessment Reference | [REDACTED] |  |

ADDITIONAL TERMS AND CONDITIONS APPLICABLE TO THIS CONTRACT

Please ensure all completed forms are copied to <u>DSTLSERAPIS@dstl.gov.uk</u> when sending to the Lot Lead.

## Tasking Form Part 2: (To be completed by the Lot Lead)

| To: The Authority  |   | From:        | The Lot Lead                           |  |
|--|---|--------------|--|--|
| Proposal Reference   | 015338-97053L U69<br>_ Research (AI Data C  |              | entre for Data<br>zer-Nash Proposal v2 | (attached)                                   |
| Delivery of the requirem                                   | ent:  |              |  |  |
| The proposal <u>shall</u> incl                             | ude, but not be limited   | l to:        |  |  |
| <ul><li>Requirements (P</li><li>Breakdown of inc</li></ul> | proposal that meets t<br>art 1 to Tasking Form).<br>lividual Deliverables, wit<br>erim Milestone Paymen | th correspon | ding Intellectual Prope                | detailed in Statement of rty rights applied. |

- Breakdown of Interim Milestone Payments, with corresponding due dates.
  A work breakdown structure/project plan with key dates and deliverables identified.
- A list of required Government Furnished Assets from the Authority, including required delivery dates.
- A clear identification of Dependencies, Assumptions, Risks and Exclusions which underpin your Technical Proposal.
- Sub-Contractors Personnel Particulars Research Worker Form and security clearances (if applicable)

#### PRICE BREAKDOWN

You are to use the costs detailed in Item 2 Table I in the Schedule of Requirement and at Annex E Table 2 of the Serapis Framework Agreement. Please also provide a price breakdown which should include, but is not limited to: Lot Lead Rates, Sub-contractors costs and rates, travel and subsistence. In support of your Proposal you are requested to provide clear details of all Dependencies, Assumptions, Risks and Exclusions that underpin your price.

Offer of Contract: (to be completed and signed by the Contractor's Commercial or Contract Manager)

| Total Proposal Price in £ | £4,162,190.35                  |       |           | (ex VAT)                    |
|---------------------------|--------------------------------|-------|-----------|-----------------------------|
| Start Date:               | May 16 <sup>th</sup> 2022      |       | End Date: | March 31 <sup>st</sup> 2025 |
| Lot Leads Representative  | Name [REDACTED]                |       |           |                             |
|                           | Tel [REDACTED]                 |       |           |                             |
|                           | Email [REDACTED]               |       |           |                             |
|                           | Date May 10 <sup>th</sup> 2022 |       |           |                             |
| Position in Company       | [REDACTED]                     |       |           |                             |
| Signature                 | [REDAG                         | CTED] |           |                             |

Notes:

1. [REDACTED]

2. [REDACTED]

### Core Work – Breakdown [REDACTED]

Lot Lead Rates for Task Management Services (TMS)



| Team Member<br>Name | Role | Activity Type | Rate (£) | Total<br>Hours | LMS<br>recovery<br>per role<br>per hour<br>('d'<br>element) | Total<br>LMS<br>recovery<br>due (£)<br>('d' x<br>total<br>hours) | Total<br>TMS<br>Cost (£)<br>(Rate x<br>total<br>hours) |
|---------------------|------|---------------|----------|----------------|---|--|--|
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| Work Delivered By Sub-Contractor(s) |                  |                         |                  |          |                |                |  |
|-------------------------------------|------------------|-------------------------|------------------|----------|----------------|----------------|--|
| Name of Sub-<br>Contractor          | Supplier<br>Type | Activity<br>Description | Team Member Role | Rate (£) | Total<br>Hours | Total Cost (£) |  |
| [REDACTED]                          |                  |                         |                  |          |                |                |  |
|                                     |                  |                         |                  |          |                |                |  |
|                                     |                  |                         |                  |          |                |                |  |
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|                                     |                  |                         |                  |          |                |                |  |

| Travel, Subsiste | nce, Materials & E | quipment                |               |          |                     |
|------------------|--------------------|-------------------------|---------------|----------|---------------------|
| Travel & Subsist | tence              |                         |               |          |                     |
| Supplier Name    | Spend Type         | Description / Rationale | Unit Cost (£) | Quantity | Total Cost (£)      |
| [REDACTED]       |                    |                         |               |          |                     |
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| Materials & Equi |                    |                         |               |          | <b>T</b> ( 10 ) (0) |
| Supplier Name    | Spend Type         | Description / Rationale | Unit Cost (£) | Quantity | Total Cost (£)      |
|                  |                    |                         |               |          |                     |
| [REDACTED]       |                    |                         |               |          |                     |
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| Travel, Subsister | Travel, Subsistence, Materials & Equipment |  |  |  |  |  |  |  |  |
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## Core Work – Milestone breakdown costs

**Proposed Milestones Payments** 

Your TMS bid costs shall be included in milestone 1.

The final Milestone must reflect the actual cost of the deliverable, and be greater than 20% of the Task value, unless otherwise agreed with your Commercial POC

Please duplicate the template per milestone table format below as necessary, and rename milestone number accordingly.

| Milestone M1 |                 |                               |                                |                                |                       |        |
|--------------|-----------------|-------------------------------|--------------------------------|--------------------------------|-----------------------|--------|
| Description  | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
| [REDACTED]   |                 |                               |                                |                                |                       |        |
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| Milestone M2 |                 |                               |                                |                                |                       |        |
| Description  | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
| [REDACTED]   |                 |                               |                                |                                |                       |        |
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| Milestone M3 |                 |                               |                                |                                |                       |        |
| Description  | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
| [REDACTED]   |                 |                               |                                |                                |                       |        |
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| Milestone M4 |                 |                               |                                |                                |                       |        |
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| Description  | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
| [REDACTED]   |                 |                               |                                |                                |                       |        |
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| Milestone M5 |                 |                               |                                |                                |                       |        |
| Description  | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
| [REDACTED]   |                 |                               |                                |                                |                       |        |
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| Milestone M6 |                 |                               |                                |                                |                       |        |
| Description  | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
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| Milestone M7 |                 |                               |                                |                                |                       |        |
| Description  | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
| [REDACTED]   |                 |                               |                                |                                | 30/09/2023            | 705    |
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| Milestone M8 |                 |                               |                                |                                |                       |        |
| Description  | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
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| Milestone M9  |                 |                               |                                |                                |                       |        |
| Description   | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
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| Milestone M10 |                 |                               |                                |                                |                       |        |
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| Description   | TMS cost<br>(£) | Delivery<br>cost (£)          | contractor<br>cost (£)         | milestone<br>cost (£)          | Milestone<br>due date | DEFCON |
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| Milestone M11 |                 |                               |                                |                                |                       |        |
| Description   | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
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| Milestone M12 |                 |                               |                                |                                |                       |        |
|               |                 | Self-                         | Sub-                           | Total                          | M214                  |        |
| Description   | TMS cost<br>(£) | Delivery<br>cost (£)          | contractor<br>cost (£)         | milestone<br>cost (£)          | Milestone<br>due date | DEFCON |
| [REDACTED]    |                 |                               |                                |                                |                       |        |
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| Milestone M13  |                 |                               |                                |                                |                       | Ī      |
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| Description    | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
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| Milestone M14  |                 |                               |                                |                                |                       |        |
| Willestone W14 |                 | Self-                         | Sub-                           | Total                          |                       |        |
| Description    | TMS cost<br>(£) | Delivery<br>cost (£)          | contractor<br>cost (£)         | milestone<br>cost (£)          | Milestone<br>due date | DEFCON |
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| Milestone M15  |                 |                               |                                |                                |                       |        |
| Description    | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
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| Milestone M16  |                 |                               |                                |                                |                       |        |
| Description    | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
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| Milestone M17  |                 |                               |                                |                                |                       |        |
| Description    | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |

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| Milestone M18 |                 |                               |                                |                                |                       |        |
|               | TMS cost        | Self-                         | Sub-                           | Total                          | Milestone             |        |
| Description   | (£)             | Delivery<br>cost (£)          | contractor<br>cost (£)         | milestone<br>cost (£)          | due date              | DEFCON |
| [REDACTED]    |                 |                               |                                |                                |                       |        |
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| Milestone M19 |                 |                               |                                |                                |                       |        |
| Description   | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
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| Milestone M20 |                 |                               |                                |                                |                       |        |
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| Description   | TMS cost<br>(£) | Delivery<br>cost (£)          | contractor<br>cost (£)         | milestone<br>cost (£)          | Milestone<br>due date | DEFCON |
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| Milestone M21 |                 | 0.11                          | Quite                          | Tatal                          |                       |        |
| Description   | TMS cost        | Self-<br>Delivery             | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
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| Milestone M22             |                 |                               |                                |                                |                       |        |
| Description               | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
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| Milestone M23             |                 |                               |                                |                                |                       |        |
| Description               | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
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| Milestone M24             |                 |                               |                                |                                |                       |        |
| Description               | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
| [REDACTED]                |                 |                               |                                |                                |                       |        |
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| Milestone M25 Description | TMS cost<br>(£) | Self-<br>Delivery<br>cost (£) | Sub-<br>contractor<br>cost (£) | Total<br>milestone<br>cost (£) | Milestone<br>due date | DEFCON |
| [REDACTED]                |                 |                               |                                |                                |                       |        |
| Travel/Subsistence        |                 |                               |                                |                                |                       |        |
| Materials/Equipment       |                 |                               |                                |                                |                       |        |
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**Tasking Form Part 3:** 



To be completed by the Authority's Commercial Officer and copied to the Authority's Project Manager.

| 1. Acceptance of Contract:  |       |   |
|---|-------|---|
| Authority's Commercial Officer  | Name  | [REDACTED]                                  |
|   | Tel   | [REDACTED]                                  |
|   | Email | [REDACTED]                                  |
|   | Date  | 16/5/22                                     |
| Requisition Number  |       | RQ000008166                                 |
| Contractor's Proposal Number  |       | 015338/97053L – Version 2 dated 11 May 2022 |
| Purchase Order Number   |       | DSTL000003647                               |
| Signature   |       | [REDACTED]                                  |
| Please Note: Task authorisation to be issued by the Authority's Commercial Officer or Contract<br>Manager. Any work carried out prior to authorisation is at the Contractor's own risk. |       |   |