

 **MOD Commercial**

701428394 (DInfoCom/0165)

Managed Learning Service

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Managed Learning Service

***PROVISION OF ARMY DATA SPECIALIST PILOT TRAINING***

This Contract is made

**BETWEEN** (1) **HER BRITANNIC MAJESTY’S SECRETARY OF STATE FOR**

**DEFENCE**, acting by the Directorate of Head Office and Corporate Services (HOCS), Kentigern House, 65 Brown Street, Glasgow G2 8EX (“the Authority”)

**AND** (2) **CAPITA Business Services Limited,** 4th Floor, Barnard’s Inn, 86 Fetter Lane, London, EC4A

1. The Contractor shall provide the Services described in the Statement of Requirement, in accordance with the Conditions of Contract (as detailed in Framework Schedule 4 – Order Form and Call-Off Terms for the Managed Learning Service dated 4th July 2017 – to the Framework Agreement entered into between the Authority and the Supplier on RM3822), the firm prices attached and the Contractor’s Work Order (WO) reference PSGW01661 dated 26 February 2021.

2. The Contract shall come into effect on 19 March 2021 (or earlier) until 18 March 2022.

3. Except where there is prior written approval from the Contracts Branch no payment shall be made for work performed which is outside the scope or period of the Contract.

4. If there is a conflict between the documents described in Item 1 above, the order of precedence shall be:

1. Work Order PSGW01661 dated 26 February 2021.

2. Statement of Requirements at Schedule 1

3. Conditions of Contract (as detailed in Framework Schedule 4 – Order Form and Call-Off Terms for the Managed Learning Service dated 4th July 2017 to the Framework Agreement entered into between the Authority and the Supplier on RM3822)

Document Title Her

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**SCHEDULE 1 STATEMENT OF REQUIREMENT**

**SCHEDULE 2 PRICING SCHEDULE**

**APPENDIX (DEFFORM 111) ADDRESSES & OTHER INFORMATION**

**Schedule 1**

**Schedule of Requirement**

Detailed below are the course / work specifications that are to be fulfilled by the supplier:

1. *Specification*

## Purpose / Learning Outcome

Development of data literacy skills requires a cross functional, broad approach to develop basic data literacy across all personnel, data specialists with focus in their functional area and deep data science skills drawn from reserves, industry and the civil service. To develop the requirement in detail requires the Army to generate a deeper understanding of the application of knowledge and skills within defence systems, generated through a focussed trial. Detailed below is an outline requirement that provides the basis for the learning outcomes:

* 1. **Functional Data Specialists**. There are several broad data functions required, these are in data architecture, design, engineering, management, visualization, analysis and governance. To ensure army is coherent with defence and professional functions the standards for these must be pulled from the Digital, Data and Technology capability framework using the following role standards as a baseline to build from:
1. Associate Data Analyst[[1]](#footnote-2).
2. Data Engineer[[2]](#footnote-3).
3. Data Architect[[3]](#footnote-4).

## Background Information

Data across the Army is siloed, fragmented, used for single purposes and whilst there is an ever-increasing demand, there remains limited skills to exploit it. We must treat data as a strategic asset, develop our people, establish policy, process and technology changes needed to support this goal otherwise the levels of change required will not be realised and we will allow adversaries to establish an advantage. The centrality of data (in support of intelligence and information) is recognised in both the Integrated Operating Concept (and accordingly, the British Army Land Operating Concept) and the Multi Domain Integration Joint Concept Note.

The demand for data SQEP is evolving at pace and there are several projects and activities across the Army such as THEIA, Pj CADUCEUS and Pj ORION looking how best to develop pan army and deep data SQEP. These Pj, less THEIA tend to be cap badge and CEQ focused, and whilst this is important, it misses the commonality across the Army for both military and civilian workforce for data skills. There needs to be a level of coherence to ensure development remains aligned to a quantifiable demand, but also ensures that data skills are not siloed as our current data is.

There is currently no formal training requirement set within Army; this compounded by the lack of SQEP makes defining and setting a requirement a long and complex activity. To expedite this and grow pan [[4]](#footnote-5)/civil service SQEP a pilot using capability framework outcomes[[5]](#footnote-6) allows Army to learn from experience, rapidly grow SQEP and expedite setting a pan army demand/requirement for data skills moving forward.

### The Requirement

Delivery of a modular, mentored, data specialist training package aligned to the L4 Data apprenticeship standard. Detail of the requirement is in the table below, however the package should include:

* Modular blended learning
* Coaching and mentoring throughout
* Access to virtual labs and test data
* Courseware and books as required
* Data bootcamps
* BCS Data Tools and Data Concepts exam.
* Built around tools and software used within MOD.

|  |  |  |  |
| --- | --- | --- | --- |
| **Ser****(a)** | **Outcome****(b)** | **Data Analyst****(c)** | **Activities****(d)** |
| 1 | **Skill** | Identify, collect and migrate data to/from a range of internal and external systems | Describe the **data analytics lifecycle** and set out details, activities and roles at each stage in a real-world example- Design effective **project briefs** which **communicate expectations to stakeholders**- Identify **business specific rules** related to datasets and data characteristics that will influence project design and analysis- Describe the key characteristics of the different **Data Formats** and how to work with them- Understand **normalised relational databases** and understand how and why the principles are applied- Implement **Quality Control** measures and know how to assure the quality of **data uploads** and query output- Understand data regulation and how it impacts your role**Understanding the Value of Data & Storytelling**- Excel data manipulation & aggregation- Introduction to Databases & querying with SQL- Aggregating, cleansing and segmenting with SQL.- Joins, Views, and functions in SQL- Fundamentals of Tableau.- Visualization & Dashboarding in Tableau.- Text & Sentiment analysis in Tableau- Advanced calculation and Statistics in Tableau**Programming Basics**- Data science workflow and task solving.- Getting comfortable with command line.- Using git and GitHub.- Python foundations.- Data cleansing and editing with Python**Research Design & Exploratory Data Analysis**- Introduction to Pandas, NumPy, Seaborn and Matplotlib.- Wrangling data with Pandas.- Hypothesis testing and result validation.- Data visualisation with Python.**Foundations of Data Modelling**- Introduction to SciKit-learning.- Linear Regression- Logistic Regression modelling.- KNN and classification.- Train test splitting models.**Machine Learning**- Decision Trees.- API Data.- Natural Language Processing.- Sentiment analysis.- Time series analysis |
| 2 | **Skill** | Manipulate and link different data sets as required |
| 3 | **Skill** | Interpret and apply the organisations data and information security standards, policies and procedures to data management activities |
| 4 | **Skill** | Collect and compile data from different sources |
| 5 | **Skill** | Perform database queries across multiple tables to extract data for analysis |
| 6 | **Skill** | Perform routine statistical analyses and ad-hoc queries |
| 7 | **Skill** | Use a range of analytical techniques such as data mining, time series forecasting and modelling techniques to identify and predict trends and patterns in data |
| 8 | **Skill** | Assist production of performance dashboards and reports |
| 9 | **Skill** | Assist with data quality checking and cleansing |
| 10 | **Skill** | Apply the tools and techniques for data analysis, data visualisation and presentation |
| 11 | **Skill** | Assist with the production of a range of ad-hoc and standard data analysis reports |
| 12 | **Skill** | Summarise and present the results of data analysis to a range of stakeholders making recommendations |
| 13 | **Skill** | Works with the organisation's data architecture |
| 14 | **Knowledge** | The range of data protection and legal issues |
| 15 | **Knowledge** | The data life cycle |
| 16 | **Knowledge** | The different types of data, including open and public data, administrative data, and research data |
| 17 | **Knowledge** | The differences between structured and unstructured data |
| 18 | **Knowledge** | The fundamentals of data structures, database system design, implementation and maintenance |
| 19 | **Knowledge** | The importance of the domain context for data analytics |
| 20 | **Knowledge** | The quality issues that can arise with data and how to avoid and/or resolve these |
| 21 | **Knowledge** | The importance of clearly defining customer requirements for data analysis |
| 22 | **Knowledge** | The processes and tools used for data integration |
| 23 | **Knowledge** | The steps involved in carrying out routine data analysis tasks |
| 24 | **Knowledge** | How to use and apply industry standard tools and methods for data analysis |

### Target Audience

The audience is up to 20 soldiers and civil servants across the Army who work with data, but are not necessarily experienced in data management. This package is to be flexible enough to provide for a broad range of people from novice to those working within an ICT role already.

### Specific Criteria for Bidder’s design/delivery resource

In order to ensure the requirements within this SoR are fully met the provider must be qualified and demonstrate experience in the following areas:

* Proven experience in delivering blended data training – Essential.
* Proven experience in the delivery of innovative, blended learning solutions - essential.

### Describe the supporting Knowledgepool Service provisions

The standard Knowledgepool service provision will be provided as per the agreed Call off agreement and the service Tiers selected by the Customer. A full description of the services offered under Tiers 2, 3 and 4 are provided at Section 5 of this document.

### Logistics

 *(delete/overwrite as appropriate)*

|  |  |
| --- | --- |
| Format  | 18 month blended learning pathway |
| Numbers of delegates  | Approx 20 |
| Tutor/Instructor to delegate ratio | N/A |
| Length of event | Blended over an 18 month period |
| Number of events  | N/A |
| Location  | Remote is preferred, centralised in providers location as needed |
| Key Dates & Timing | To be complete within 24 months from contract award. |
| Materials and Equipment needed, including format  | * Contractor is to generate all materials required to complete the task
* Candidates will provide their own laptops, although specialist laptops may need to be provided by the contractor for data analysis
 |
| Dependencies and constraints, e.g. other events  | N/A |

### Service Levels

* Include specific SLAs that are not included in the Knowlegepool Supplier Agreement
* How will the success of the supplier / service be measured?
* Include any bespoke KPIs such as satisfaction or pass rates, accreditations, evaluation results.
* Note: that if the client takes up only Tier 2 and not Tier 4 and some cases Tier 3, Knowledgepool will not be able to measure the supplier’s performance against these SLAs and KPIs unless the supplier is Knowledgepool or a Capita Business.

### Risk Assessment (not Cyber Security):

*The main risks relating to this activity are:*

* *Learner release from work over an elongated period (minimised through advanced scheduling and line management engagement)*

**Schedule 2**

**Pricing Schedule**

**Commercials and Invoicing**

\*All costs are inclusive of expenses and exclude VAT

Please see separate Schedule 2 - Pricing Schedule spreadsheet

**Invoicing and Payment Terms:**

Payment Terms:

Upon acceptance of the relevant Milestone (CP&F Purchase Order number), Capita Business Services shall invoice The Capita Consulting business unit of Capita Business Services Ltd.

Suppliers will only receive payment when Capita have the written endorsement of the deliverable from the MOD. At this point, the Milestone will be released to the supplier to allow them to invoice Capita.

All Invoices for the Managed Learning Services must be submitted as stated in the invoicing guide and template.

Next Steps:

Upon execution of the contract, the following would follow:

1. A Capita MLS Project Coordinator will contact your organisation to coordinate delivery between yourself and the Client – please DO NOT contact the client directly.

2. Event references/PO to be sent prior to delivery dates, please do not commence work until you have received the above.

**Note:**

**• Delivery should not commence until you have been contacted by the project manager and have been issued with an event reference.**

**• Capita will not be liable for any work undertaken without the above being satisfied.**

**• Any amendment to this work order without approval by Capita-MLS Supplier Management is void.**

Payment of the total price shall be claimed (thru’ CP&F) following the satisfactory completion of all work [appropriate milestone.].

**Insert DEFFORM 111**

**Please see separate sheet**

1. <https://www.gov.uk/guidance/data-analyst#associate-analyst>. [↑](#footnote-ref-2)
2. <https://www.gov.uk/guidance/data-engineer#data-engineer>. [↑](#footnote-ref-3)
3. <https://www.gov.uk/guidance/data-architect#data-architect>. [↑](#footnote-ref-4)
4. [↑](#footnote-ref-5)
5. Such as SFIA and DDaTs [↑](#footnote-ref-6)