

RCloud Tasking Form – Part B: Statement of Requirement (SoR)

Title of Requirement	Behavioural Analytics Review
Requisition No.	RQ0000026574
SoR Version	1.0

1.	Statement of Requirements
1.1	Summary and Background Information
	<p>Building on previous internal work and DASA calls, Dstl is seeking a systematic review of the wider advances and developments in the field of in the field of predicting human behaviour at scale since 2018/19 and the themes within both the research and the applied domains.</p> <p>The Influence and Command programme, within the current Dstl portfolio has been mandated to achieve:</p> <p>‘Through S&T, Defence can harness the behavioural and analytical science and the socio-technical capabilities to provide improved methods, tools and techniques, to develop Influence, Command and Control - integrating these elements to create advantage for Defence and wider Government.’</p> <p>Redacted - FOIA Exemption 26 - Defence</p> <p>Behavioural Analytics is the application of Human Science principles, theories, methods, evidence and rigorous scientific approach to large data sets, using mathematically robust techniques from data and computer science in order to understand and/or predict human behaviours to provide actionable insight. Behavioural Analytics encompasses a broad range of disciplines, combined with contextual understanding, to answer specific domain related questions.</p> <p>The last reviews and landscaping reports were delivered in 2019. This work helped establish a foundational understanding of the then current Behavioural Analytics research. However, it is likely the landscape of Behavioural Analytics has since evolved with further developments (including</p>

	entirely new concepts) having been published in the intervening years. An update to this work will enable better informed future research, capability planning and, identify potential use cases.
1.2	Requirement
	<p>As described in the 'background' section of this SOR, the Dstl Influence and Command programme has a requirement for an updated review of the research literature and landscape of Behavioural Analytics</p> <p>Redacted - FOIA Exemption 43 - Commercial Interests</p> <p>Plans for making inclusions and exclusions should be discussed at the start-up meeting.</p> <p>The successful supplier(s) shall provide Dstl with a report that consists of two principal parts:</p> <p>Part One An authoritative and accessible review of Behavioural Analytics, to include:</p> <ul style="list-style-type: none"> Key developments in Behavioural Analytics from both academia and industry over the last five years to include; Maturity of the development (e.g. academic research, industry method) and where it has occurred What are the data requirements for any developments Confidence of the outputs of any models Current Use Cases the methods are delivering against A clear summary of the current state-of-the-art in Behavioural Analytics (academia and industry); <p>Part Two An appraisal of anticipated future trends, developments, benefits, threats, and potential impacts of Behavioural Analytics to Defence and Security, in light of the following questions:</p> <ul style="list-style-type: none"> How rapidly is the field of Behavioural Analytics developing? Currently, what are the limiting factors to progress the field of Behavioural Analytics?

What step-changes in Behavioural Analytics capability are anticipated within the next 10 years?

What are the key focus areas for research and development of Behavioural Analytics?

Terminology

It is expected this requirement will be incorporated into part one of the previously detailed report, however it should be approached as a distinct requirement.

This component is an appraisal of the current BA lexicon and will involve reporting on:

- Whether 'Behavioural Analytics' is/continues to be a term used externally*. Is the term used consistently across industry and academia, and between disciplines?
- If 'Behavioural Analytics' **is not** a term used externally, or used consistently; what **is** the preferred and most consistently used external terminology?
- If there is inconsistency in terminology between industry and academia, and between disciplines, identify why this might be.
- Whether in the last 5 years any specific BA terminology has become more prominent/dominant in the published research and whether they link to new/emerging BA concepts (and if so what these concepts are)

*Externally in this context refers to anywhere outside of Dstl, MOD, & UK Government i.e. industry and academia

Technical Approach

Study Kick-off meeting

There will be a requirement for the supplier project team to meet with the Dstl project team to establish ways of working (WoW), communications and Technical Partnering process.

Monthly progress reviews

Review updates are likely to include (but not limited to):

- Update on technical progress (incl. key findings so far).
- Progress report against project schedule.
- Review of risk management plan.

- Commercial aspects.
- Review of deliverables.
- Risks/issues.
- Review GFA and supplier performance

Deliverables

See deliverables section in 1.6. below.

SQEP

This work may be conducted by an individual contractor or a small team, each with a minimum skill set commensurate with that of a post-doctoral researcher in a field of study related to the social, behavioural, or data science domains or equivalent.

Progress monitoring

- The project team of the successful supplier(s) will be required to attend an initial start-up meeting with Dstl research team at Dstl Porton Down within one week of contract award. The purpose of this meeting will be to discuss ways of working, the Technical Partner (TP) component, and for the supplier(s) to provide a presentation covering planned work, an outline of the deliverables, potential risks, issues, concerns and any project dependencies or assumptions.
- Remotely liaise with the Dstl TP to provide clarification and support, and to discuss progress, risks, and opportunities regarding the package of work. Regularity and depth of contact with the TP will be discussed during the start-up meeting. The regularity of these meetings will be subject to review and may change as deemed necessary by Dstl or the supplier. The supplier shall minute these meetings and provide these minutes to Dstl within 5 working days of the meeting.
- Written monthly updates from the supplier(s) via email
- More detailed quarterly reporting (written), to meet the Dstl programme (Quarterly Progress Review (QPR)) process. This will include an opportunity to discuss issues as well as progress
- A final meeting will be held at a Dstl site during the final month of the contract, for the supplier to present the final deliverables

Exclusions

	<ul style="list-style-type: none"> ○ No new research will be funded for these tasks ○ Conference attendance will not be funded by this task <p><u>General</u></p> <ul style="list-style-type: none"> ○ All deliverables are required to be written to a high standard of English (including spelling, punctuation, and grammar) and be accessible to a non-subject matter expert. ○ A full glossary/appendix will be required in each report ○ Graphics and tables will be utilised where appropriate, at relevant points in the report. ○ Key messages will be highlighted in bordered boxes where appropriate throughout the report. ○ Draft versions of deliverables will be provided to Dstl three weeks prior to the final deliverable date, for review and comment. ○ Final versions of all deliverables will be provided to Dstl on the contract end date. ○ All deliverables will be fully referenced to a recognised standard (e.g. APA) and feature in-text citations ○ Travel and subsistence costs for up to 4 day visits by the supplier(s) to Dstl sites are required to be included by the supplier(s) as part of the cost of their proposal.
1.3	Options or follow on work <i>(if none, write 'Not applicable')</i>
	Not applicable
1.4	Contract Management Activities
	Monthly updates provided as part of contractual deliverables.
1.5	Health & Safety, Environmental, Social, Ethical, Regulatory or Legislative aspects of the requirement
	Not applicable

1.6 Deliverables & Intellectual Property Rights (IPR)							
Ref.	Title	Due by	Format	TRL*	Expected classification (subject to change)	What information is required in the deliverable	IPR DEFCON/ Condition <i>(Commercial to enter later)</i>
D - 1	Start-up meeting presentation	T+1 Week	MS PowerP oint / PDF Compat ible	n/a	Redacted - FOIA Exemption 24 - National Security	<p>The supplier(s) will deliver a presentation at the initial start-up meeting to cover:</p> <ul style="list-style-type: none"> ○ Their proposed structure to delivering the requirement(s) ○ Any risks, issues, concerns identified by the supplier to be discussed/resolved ○ Confirmation of their initial search strategy ○ Confirmation of the deliverables 	As per Section 7.1 of the R-Cloud V4 Framework Agreement (DEFCON 705).
D - 2	Virtual Update meetings	Monthly	MS Word for minutes	n/a	Redacted - FOIA Exemption 24 - National Security	<p>An opportunity to discuss with the Technical Partner/Dstl team the progress of the work, any milestones met, findings of note, as well as any issues, concerns as they arise</p> <p>Frequency of meetings will be confirmed at start-up meeting.</p>	As per Section 7.1 of the R-Cloud V4 Framework Agreement (DEFCON 705).

D - 3	Written Monthly updates	Last working day of each month or within a week of the update meeting	Email	n/a	Redacted - FOIA Exemption 24 - National Security	Will act as a complement to, or alongside D – 2	As per Section 7.1 of the R-Cloud V4 Framework Agreement (DEFCON 705).
D – 4	Updated Behavioural Analytics research literature and landscape report	T+5 months	MS Word or PDF	n/a	Redacted - FOIA Exemption 24 - National Security	Written report on Behavioural Analytics as outlined in the section(s) above.	As per Section 7.1 of the R-Cloud V4 Framework Agreement (DEFCON 705).
D – 5	Closure meeting	T+6 months	In person presentation	n/a	Redacted - FOIA Exemption 24 - National Security	<p>The meeting between Dstl and the supplier(s) will cover:</p> <ul style="list-style-type: none"> ○ Overview of the report including summary findings, and particular points of interest ○ Conclusions and recommendations where appropriate for further investigation/research 	As per Section 7.1 of the R-Cloud V4 Framework Agreement (DEFCON 705).

1.7	Deliverable Acceptance Criteria
	As per Section 9 of the R-Cloud V4 Framework Agreement – Supply of Contractor Deliverables and Quality Assurance.

1.8 Government Furnished Assets (GFA)					
GFA to be Issued - Yes					
<i>If 'yes' – add details below. If 'supplier to specify' or 'no,' delete all cells below.</i>					
GFA No.	Unique Identifier/ Serial No	Description: <i>Classification, type of GFA (GFE for equipment for example), previous MOD Contracts and link to deliverables</i>	Available Date	Issued by	Return Date or Disposal Date (T0+) <i>Please specify which</i>
GFA-1	DSTLX-1000129507	GFI – “Behavioural Analytics (BA): A Scoping Study”; QinetiQ (04/03/19)	EMR commencement date	PM	Closure
GFA-2	RN1000130960-CSS - D003	GFI – “Surveying the Landscape of Computational Social Sciences (CSS) – Technical Report”	EMR commencement date	PM	Closure
GFA-3	RN1000130960-CSS- D008	GFI – Annex to Technical Report (GFA-2); “Systematic Review of CSS Literature”	EMR commencement date	PM	Closure

2	Evaluation Criteria
2.1	Method Explanation

	<p>This requirement will be competed and awarded on the basis of the Value for Money Index (VFM Index) evaluating Technical and Price using a lowest price per technical point scored. This will be ascertained by dividing each bidder's quoted price by their own final moderated technical score. All bids received by the closing date will be assessed against the tender evaluation process detailed below.</p> <p>The Authority will use an evaluation model consisting of three criteria as follows:</p> <ul style="list-style-type: none">• Commercial: PASS / FAIL• Technical• Pricing <p>The price of each proposal will subsequently be divided by the final moderated technical score to arrive at the lowest price per technical point scored. The bidder with the lowest price per technical point scored will be adjudged as the winner.</p> <p>Example: Supplier A submits a proposal costing £150,000. Their proposal receives a final moderated score of 50. £150,000/50 = £3000 per technical point scored.</p> <p>Supplier B submits a proposal costing £125,000. Their proposal receives a final moderated score of 40. £125,000/40 = £3125 per technical point scored.</p> <p>In this scenario, Supplier A would be the winner as their price is lower per technical point scored.</p>																									
2.2	<p>Technical Evaluation Criteria</p> <p>Technical evaluation will be carried out by a team of between 3 and 5 assessors who will review the technical proposals independently and then bring their scores to a moderation meeting. The moderation meeting will be chaired by the Dstl Project Manager.</p> <p>The moderation meeting will discuss each Tenderers response in turn and attribute a moderated technical score to each of the technical criteria and a final score calculated. Technical criteria is provided below.</p> <table><tr><th>Ref</th><th>Criteria</th><th>Available Score</th><th>Weighting</th><th>Total Available Score</th></tr><tr><td>T1</td><td>The proposal clearly demonstrates that the Contractor understands the requirement.</td><td>1-5</td><td>1</td><td>5</td></tr><tr><td>T2</td><td>The proposal provides details of key risks, dependencies, assumptions and any relevant ethical issues the Contractor has identified.</td><td>1-5</td><td>1</td><td>5</td></tr><tr><td>T3</td><td>The proposal clearly demonstrates that the Contractor has the expertise and knowledge to successfully deliver the requirement.</td><td>1-5</td><td>2</td><td>10</td></tr><tr><td>T4</td><td>The proposal clearly demonstrates that the personnel the Contractor has nominated to work on the requirement have the relevant experience to successfully deliver it.</td><td>1-5</td><td>2</td><td>10</td></tr></table>	Ref	Criteria	Available Score	Weighting	Total Available Score	T1	The proposal clearly demonstrates that the Contractor understands the requirement.	1-5	1	5	T2	The proposal provides details of key risks, dependencies, assumptions and any relevant ethical issues the Contractor has identified.	1-5	1	5	T3	The proposal clearly demonstrates that the Contractor has the expertise and knowledge to successfully deliver the requirement.	1-5	2	10	T4	The proposal clearly demonstrates that the personnel the Contractor has nominated to work on the requirement have the relevant experience to successfully deliver it.	1-5	2	10
Ref	Criteria	Available Score	Weighting	Total Available Score																						
T1	The proposal clearly demonstrates that the Contractor understands the requirement.	1-5	1	5																						
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T3	The proposal clearly demonstrates that the Contractor has the expertise and knowledge to successfully deliver the requirement.	1-5	2	10																						
T4	The proposal clearly demonstrates that the personnel the Contractor has nominated to work on the requirement have the relevant experience to successfully deliver it.	1-5	2	10																						

T5	The proposal clearly demonstrates that the Contractors proposed approach will fully address all the key research questions / mandatory requirements stated in the RCA. Proposal should include the following: a detailed work breakdown structure, schedule, roles and responsibilities.	1-5	6	30	
				60	

Technical Scoring Guide - Definition of Terms:

Word or phase	Meaning
Comprehensive	Including or dealing with all or nearly all elements or aspects
Close to comprehensive	Including or dealing with slightly less elements or aspects than comprehensive
Satisfactory	Acceptable
Limited	Missing some minor / important elements
Inadequate	Missing some major / important elements

T1. The proposal clearly demonstrates that the Contractor understands the requirement.

Score	Key Indicators
5 = Exceeds	<ul style="list-style-type: none"> Demonstrates a comprehensive understanding of the Authority's requirements and objectives, – illustrating knowledge that goes significantly beyond that presented in this Statement of Requirement; Provides excellent insights into how the context and associated requirements may evolve - going well beyond the material presented in the statement of requirement.
4 = Fully meets	<ul style="list-style-type: none"> Demonstrates a close to comprehensive understanding of the Authority's requirements – illustrating knowledge that goes beyond that presented in this Statement of Requirement; Provide good insights into how the context and associated requirements may evolve - going beyond the material presented in the statement of requirement.
3 = Adequately meets	<ul style="list-style-type: none"> Demonstrates an understanding of the Authority's requirements; Provide some insights into how the context and associated requirements may evolve - going beyond the material presented in this statement of requirement.
2 = Fails to meet in a minor respect	<ul style="list-style-type: none"> Has shortfalls in demonstrating an understanding of the question area / requirement – for example, simply mirroring the information presented in this Statement of Requirement; Offers little insight into how the context and associated requirements may evolve.
1 = Fails to meet in a major respect	<ul style="list-style-type: none"> Fails to demonstrate understanding of the question area / requirement;

		<ul style="list-style-type: none"> Offers no insights into how the context and associated requirements may evolve.
T2. The proposal provides details of key risks, dependencies, assumptions and any relevant ethical issues.		
Score	Key Indicators	
5 = Exceeds	<ul style="list-style-type: none"> Provides a comprehensive overview of key risks, dependencies, assumptions. 	
4 = Fully meets	<ul style="list-style-type: none"> Provides a close to comprehensive overview of key risks, dependencies, assumptions. 	
3 = Adequately meets	<ul style="list-style-type: none"> Provides a satisfactory overview of key risks, dependencies, assumptions. 	
2 = Fails to meet in a minor respect	<ul style="list-style-type: none"> Provides a limited overview of key risks, dependencies, assumptions. 	
1 = Fails to meet in a major respect	<ul style="list-style-type: none"> Provides an inadequate overview of key risks, dependencies, assumptions. 	
T3. The proposal clearly demonstrates that the Contractor has the expertise and knowledge to successfully deliver the requirement.		
Score	Key Indicators	
5 = Exceeds	<ul style="list-style-type: none"> Demonstrates comprehensive expertise of relevance to the requirement. 	
4 = Fully meets	<ul style="list-style-type: none"> Demonstrates close to comprehensive expertise of relevance to the requirement. 	
3 = Adequately meets	<ul style="list-style-type: none"> Demonstrates satisfactory expertise of relevance to the requirement. 	
2 = Fails to meet in a minor respect	<ul style="list-style-type: none"> Demonstrates limited expertise of relevance to the requirement. 	
1 = Fails to meet in a major respect	<ul style="list-style-type: none"> Demonstrates inadequate expertise of relevance to the requirement. 	
T4. The proposal clearly demonstrates that the personnel the Contractor has nominated to work on the requirement have the relevant experience to successfully deliver it.		
Score	Key Indicators	
5 = Exceeds	<ul style="list-style-type: none"> Demonstrates that the project team has comprehensive expertise and relevant experience to successfully deliver this requirement. 	
4 = Fully meets	<ul style="list-style-type: none"> Demonstrates that the project team has close to comprehensive expertise and relevant experience to successfully deliver this requirement. 	
3 = Adequately meets	<ul style="list-style-type: none"> Demonstrates that the project team has satisfactory expertise and relevant experience to successfully deliver this requirement. 	
2 = Fails to meet in a minor respect	<ul style="list-style-type: none"> Demonstrates that the project team has limited expertise and relevant experience to successfully deliver this requirement. 	
1 = Fails to meet in a major respect	<ul style="list-style-type: none"> Demonstrates that the project team has inadequate expertise and relevant experience to successfully deliver this requirement. 	

T5. The proposal clearly demonstrates that the Contractors proposed approach will fully address the key research questions / mandatory requirements stated in the RCA. Proposal should include the following: a detailed work breakdown structure, schedule, roles and responsibilities.

Score	Key Indicators
5 = Exceeds	<ul style="list-style-type: none"> Provides a comprehensively detailed technical approach, illustrating how it may evolve during the life of the contract; Comprehensively addresses all of the key research questions / mandatory requirements; Provides significant additional relevant information and clear insights; Provides strong examples and reasoning to back up any arguments presented, including reference sources; Demonstrates excellent awareness of key challenges and provides significant detail on how they may be addressed.
4 = Fully meets	<ul style="list-style-type: none"> Provides a comprehensively detailed technical approach; Comprehensively addresses all of the key research questions / mandatory requirements; Provides some additional relevant information or insights; Provides some examples and reasoning to back up any arguments presented, including reference sources; Demonstrates good awareness of key challenges and how they may be addressed.
3 = Adequately meets	<ul style="list-style-type: none"> Provides a satisfactorily detailed technical approach; Satisfactorily addresses all of the key research questions / mandatory requirements; Provides little additional relevant information or insights; Provides few examples and reasoning to back up any arguments presented, including reference sources; Demonstrates awareness of some of the key challenges and how they may be addressed.
2 = Fails to meet in a minor respect	<ul style="list-style-type: none"> Provides limited detail in the technical approach; Limited consideration of the key research questions / mandatory requirements; Provides no additional relevant information or insights; Provides insufficient examples, and/ or little reasoning, to back up any arguments presented; Demonstrates only limited awareness of key challenges and how these may be addressed.
1 = Fails to meet in a major respect	<ul style="list-style-type: none"> Provides an inadequately detailed technical approach; Inadequate consideration of the key research questions / mandatory requirements; Provides no additional relevant information or insights; Provides no examples or reasoning, to back up any arguments presented; Demonstrate no awareness of key challenges and how these may be addressed.

	The weighted scores on each limb will be added together to give a final technical score. Each technical assessor will perform an individual evaluation and then a final moderated technical score will be arrived at in the moderation meeting.				
2.3	Commercial Evaluation Criteria				
<p>Evaluation of Commercial bids will be undertaken against responses to the sub-criteria detailed below and scored in accordance with the ‘Commercial Scoring Definitions’ underneath.</p> <p>The Authority reserves the right to reject any Tender if a supplier scores a ‘Fail’ in any of the criteria below.</p>					

The score (Pass/Fail) awarded to each of the Commercial Sub-criteria will be in accordance with the following definitions:

Score	Definition
Pass	Fully meets the Authority's requirement. Provision and acceptance of the sub-criteria information in the format requested, which is clear, unambiguous and transparent.
Fail	Unacceptable/Nil Return. Tenderer did not respond to the question or the response wholly failed to demonstrate an ability to meet the sub-criteria requirement.