

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

Title of Requirement	Enhancement of matEXODUS REDACTED UNDER FOIA EXEMPTION
Requisition No.	DSTLR1000166392
SoR Version	0.1

1.	Statement of Requirements
1.1	Summary and Background Information
	<p>matEXODUS provides crowd modelling within urban and transport environments REDACTED UNDER FOIA EXEMPTION. matEXODUS is to be further modified to support infrastructure representing an urban high street.</p> <p>Building on work undertaken during FY19/20 and FY20/21, this initiative will enhance the existing modelling capabilities (within matExodus) to more intensively assist OGD's and its government colleagues in operational response and emergency response planning. The analysis will include a statistical significance of 95% to remove the effect of random modelling artefacts</p>
1.2	Requirement
	<p>The requirement has three elements for HSG and DfT customers, and is split between a core work package detailed in this section, and two optional work packages which are detailed in section 1.3 Options or Follow on work.</p> <p><b>Core Work package – Financial Year 2021/22. (Maximum Budget £50,000 Vat Ex).</b></p> <p>B) REDACTED UNDER FOIA EXEMPTION GU should follow on last year's scenarios and extend the geometry to handle a larger environment, REDACTED UNDER FOIA EXEMPTION:</p> <p>In order to provide a full dataset for the emergency response decision aid the Contractor shall provide the following:</p> <ul style="list-style-type: none"> <li>REDACTED UNDER FOIA EXEMPTION</li> <li>REDACTED UNDER FOIA EXEMPTION</li> <li>REDACTED UNDER FOIA EXEMPTION</li> <li>Output to include distance travelled of individual passengers</li> <li>Optimise Algorithms - matExodus performance with double deck geometries</li> <li>Provide support in the construction and addition of new model geometry</li> </ul>
1.3	Options or follow on work (if none, write 'Not applicable')
	<p><b>Proposed Optional Work Packages - Financial Year 2022/23</b></p> <p>Please provide a firm price quotation for the following optional work packages</p> <p>A) HSG High St Scenario. GU are to modify matEXODUS to model a REDACTED UNDER FOIA EXEMPTION a high street. The scenario should build upon REDACTED UNDER FOIA EXEMPTION in the previous contract:</p> <p>Using existing capabilities and developing new features GU are required to modify matEXODUS to evaluate the effects and sensitivity within the scenario of interest of:</p> <ul style="list-style-type: none"> <li>REDACTED UNDER FOIA EXEMPTION</li> <li>REDACTED UNDER FOIA EXEMPTION</li> <li>Civilian responses REDACTED UNDER FOIA EXEMPTION</li> <li>Improved Visualisations</li> </ul>

	<ul style="list-style-type: none"> <li>• Optimise Algorithms</li> </ul> <p>C) <b>REDACTED UNDER FOIA EXEMPTION</b> Enhanced human behaviours. GU should develop additional behaviours to enhance confidence in the simulation output, and further develop the threat models available to matExodus:</p> <p>Based on SME judgement during the work conducted during FY20-21, it is recommended that additional functionality should be implemented with matEXODUS to provide more comprehensive modelling output and deal with a broader scenario range. Incorporation of:</p> <ul style="list-style-type: none"> <li>• Travel groupings</li> <li>• Disruptive actions</li> <li>• <b>REDACTED UNDER FOIA EXEMPTION</b></li> <li>• Scenario-specific geometries</li> <li>• <b>REDACTED UNDER FOIA EXEMPTION</b></li> </ul>
<b>1.4</b>	<b>Contract Management Activities</b>
	<b>This contract will be managed locally by the Project Manager.</b>
<b>1.5</b>	<b>Health &amp; Safety, Environmental, Social, Ethical, Regulatory or Legislative aspects of the requirement</b>
	<b>No additional aspect stated</b>

1.6 Deliverables & Intellectual Property Rights (IPR)						
Ref.	Title	Due by	Format	Expected classification (subject to change)	What information is required in the deliverable	IPR Condition
D1	OPTION <b>REDACTED UNDER FOIA EXEMPTION</b> Report A	T0+10 Months	Report (PDF)	OS	Report to include but not limited to: <ul style="list-style-type: none"> <li>• Update on technical progress</li> <li>• Description of new behaviours implemented</li> <li>• Evaluation of sensitivity to <b>REDACTED UNDER FOIA EXEMPTION</b></li> <li>• Evaluation of sensitivity to <b>REDACTED UNDER FOIA EXEMPTION</b></li> </ul>	RCloud Agreement Terms and Conditions shall apply
D - 2	OPTION <b>REDACTED UNDER FOIA EXEMPTION</b> Presentation A	TO + 10 months	Presentation (.pptx)	OS	Presentation to include but not limited to: <ul style="list-style-type: none"> <li>• Demonstration of new behaviours within an appropriate environment/scenario.</li> <li>• Videos demonstrating identified sensitivities</li> <li>• Steps required to utilise new behaviour in matEXODUS</li> </ul>	RCloud Agreement Terms and Conditions shall apply
D - 3	CORE TASK <b>REDACTED UNDER FOIA EXEMPTION</b> Report B	TO + 5 months	Report (.pdf)	OS	Report to include but not limited to: <ul style="list-style-type: none"> <li>• Update on technical progress</li> <li>• Description of new behaviours implemented</li> <li>• Evaluation of sensitivity to <b>REDACTED UNDER FOIA EXEMPTION</b></li> </ul>	RCloud Agreement Terms and Conditions shall apply

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<i>D – 4</i>	CORE TASK <b>REDACTED UNDER FOIA EXEMPTION</b> Presentation B	TO + 5 Months	Presentation (.pptx)	OS	Presentation to include but not limited to: <ul style="list-style-type: none"> <li>• Demonstration of new behaviours within an appropriate environment/scenario.</li> <li>• Videos demonstrating identified sensitivities</li> <li>• Steps required to utilise new behaviour in matEXODUS</li> </ul>	RCloud Agreement Terms and Conditions shall apply
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D-7	Updated Software Executables	T0 + 5 Months (Core Task)	Application (.exe)	OS	Software application  Final executable expected by due date  Interim updates according to developer milestones i.e. Deliverable for Core Task (v1.0), and subsequent uplifts to the deliverable where Dstl exerts a Task Option (e.g. v1.1 / v1.2)	RCloud Agreement Terms and Conditions shall apply
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1.7	Deliverable Acceptance Criteria
	<p>The final technical report shall include, but not be limited to details of work undertaken; the generated data shall be presented in a clear and concise manner so that it can be used to populate model templates; information surrounding the build, verification and validation of computational models.</p> <p>The report is required to be in the form of a written document and be sent to the Technical POCs of the contract <b>REDACTED UNDER FOIA EXEMPTION</b></p> <p>The Authority will be responsible for acceptance of the deliverable/s.</p> <p>The outputs will be checked by the Authority for consistency and quality before acceptance.</p> <p>Acceptance will take place at Dstl Porton Down.</p> <p>Acceptance will be determined by a formal review of the delivered document/reports by the Authority.</p> <p>Acceptance will take place within 30 days of receipt of the deliverable by the Authority/upon completion of the Contract by the Contractor. The Contractor will be advised if and when the deliverable is acceptable. If any deliverables are not accepted, the Contractor shall be required to take remedial action to the satisfaction of the Authority, at no additional cost to the Authority.</p> <p>The standard Acceptance Criteria where a report is the main deliverable is as follows:</p> <ul style="list-style-type: none"> <li>o All Reports included as Deliverables under the Contract e.g. Progress and/or Final Reports etc. must comply with the Defence Research Reports Specification (DRRS) which defines the requirements for the presentation, format and production of scientific and technical reports prepared for MoD.</li> <li>o Interim or Progress Reports: The report should detail, document, and summarise the results of work done during the period covered and shall be in sufficient detail to comprehensively explain the results achieved; substantive performance; a description of current substantive performance and any problems encountered and/or which may exist along with proposed corrective action. An explanation of any difference between planned progress and actual progress, why the differences have occurred, and if behind planned progress what corrective steps are planned.</li> <li>o Final Reports: shall describe the entire work performed under the Contract in sufficient detail to explain comprehensively the work undertaken and results achieved including all relevant technical details of any hardware, software, process or system developed there under. The</li> </ul>

	<p>technical detail shall be sufficient to permit independent reproduction of any such process or system.</p> <ul style="list-style-type: none"> <li>o All Reports shall be free from spelling and grammatical errors and shall be set out in accordance with the Statement of Requirement above.</li> <li>• Failure to comply with the above may result in the Authority rejecting the deliverables and requesting re-work before final acceptance.</li> </ul>
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2	Evaluation Criteria																						
2.1	Method Explanation																						
	<p>Compliant submission - The evaluation approach shall utilise the highest scoring technically compliant affordable bid, against the Dstl approved budget of £50,000 and only the Core Work Package shall be considered within this budgetary figure.</p> <p>Please note that only those proposals that pass the commercial assessment shall be taken forwards for Technical evaluation.</p>																						
2.2	Technical Evaluation Criteria																						
	Fully compliant proposal																						
	<table border="1"> <thead> <tr> <th>ID</th><th>Criteria</th><th>Score</th><th>Weighting (%)</th></tr> </thead> <tbody> <tr> <td>1</td><td>The bidder owns the IP to their own high-fidelity blast solver and is willing to grant full user rights</td><td>0 or 10</td><td>20</td></tr> <tr> <td>2</td><td>The bidder demonstrates a clear understanding of the requirement and how their proposed plan will meet the Dstl requirement and provide the required deliverables to an acceptable quality.</td><td>0 – 10</td><td>40</td></tr> <tr> <td>3</td><td>The bidder provides a clear assessment of the suitability of their model with suitable supporting evidence.</td><td>0 - 10</td><td>20</td></tr> <tr> <td>4</td><td>The bidder provides a feasible Project Management Plan.</td><td>0 - 10</td><td>10</td></tr> </tbody> </table>	ID	Criteria	Score	Weighting (%)	1	The bidder owns the IP to their own high-fidelity blast solver and is willing to grant full user rights	0 or 10	20	2	The bidder demonstrates a clear understanding of the requirement and how their proposed plan will meet the Dstl requirement and provide the required deliverables to an acceptable quality.	0 – 10	40	3	The bidder provides a clear assessment of the suitability of their model with suitable supporting evidence.	0 - 10	20	4	The bidder provides a feasible Project Management Plan.	0 - 10	10		
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	5	The bidder's final firm price falls within Dstl's available budget.	0 or 10	10										
	NB. If any criteria scores a 0 Dstl reserve the right to remove the bid from consideration.													
	The following scoring guide will be used to evaluate each criteria													
	<table><tr><th>Score</th><th>Definition</th></tr><tr><td>10</td><td>Excellent response</td></tr><tr><td>7</td><td>Good response</td></tr><tr><td>3</td><td>Adequate response</td></tr><tr><td>0</td><td>Non-compliant or question not answered</td></tr></table>				Score	Definition	10	Excellent response	7	Good response	3	Adequate response	0	Non-compliant or question not answered
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