[redacted]

Statement of Requirement (SoR)

Reference Number	**RQ0000062456**
Version Number	**1**
Date	**25/09/2024**

1.	**Requirement**
1.1	**Title**
	Battle model scenario design tool
1.2	**Summary**
	Dstl have a requirement for a tool which simplifies the process of designing scenarios and generating inputs to battle models. The overarching specification is for the supplier to create a Graphical User Interface (GUI) using Unreal Engine. The GUI would allow the user to generate and inspect battle scenarios, and simulate them using the battle models operated and supported by the Strategic Systems Group (SSG). The requirement relates to all aspects of interfacing with battle models, from creating new platforms, systems and subsystems for use within battle scenarios, through to the construction and design of battle scenarios as well as passing data to, running and viewing output from battle models. The particular focus of this work should be on addressing the requirements to simplify the design of scenarios using pre-existing platform data, running battle models and viewing outputs. The creation of new platforms, systems and subsystems is a possible stretch goal. The output of the work must include the Unreal Engine project which can be compiled by Dstl and facilitate future development, as well as a compiled version of the software.
1.3	**Background**

	The primary purpose of the Scenario Design Tool (SDT) is to simplify the process of interfacing with the battle models used at Dstl. This is driven by the following needs which have been identified: P1. Increase the user community for battle models, stemming from an increasing requirement to conduct battle modelling studies and develop Suitably Qualified & Experienced Personnel (SQEP) for battle modelling. P2. Reduce the time frames associated with developing battle modelling SQEP and familiarising new users with the battle modelling tools and capability at Dstl. P3. Reduce the overheads involved with creating battle model scenarios, running battle models and viewing simulation results. P4. Visualise and examine the battle scenario prior to using the battle model. P5. Perform automatic checks on the validity of threat trajectories within the scenario prior to using the battle model. P6. Ease the process of sharing output with expert and non-expert communities such as colleagues, customers and stakeholders. P7. Have a single user interface which can format and pass scenario data to multiple battle models. To achieve the aims above, the scope of the SDT must cover capabilities required to support the following activities: S1. Viewing, designing, modifying battle scenarios S2. Viewing, designing, modifying platforms S3. Viewing, designing, modifying threat trajectories S4. Running battle models with single and batch runs S5. Displaying results and performing analysis
1.4	**Requirement**

	Software requirements are available in the attached Software Requirements Specification (SRS) document. In addition, test cases demonstrating the functionality should be designed and implemented by the organisation carrying out the work. These test cases must be provided to Dstl as part of the deliverable. All development work should be carried out in a way which facilitates future development.
1.5	**Options or follow on work**
	Work to be completed by 31st March 2025 forms the core work. Work to be completed after 31st March 2025 need to be included as a firm priced option. We have the intention of contracting future work. This will be scoped once this initial contract is completed.

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**
D - 0	Monthly reporting	Every month	Single page document or PowerPoint slide	n/a	O	Update on progress against plan, issues, Risks.	DEFCON 705
D – 1	Delivery stage 1	T0+2 Months	Documentation (.docx or .pdf)	n/a	O	Plan of work, including a timeline highlighting which aspects of the requirement will be completed by when.	DEFCON 705
D – 2	Delivery stage 2	31st March 2025	Unreal Engine project, Compiled software	n/a	O	Unreal Engine project and compiled software to include (but not limited to): • Implementation of requirements as agreed in the plan of work.	DEFCON 703 – ownership of IP vested in the Authority

			(.exe), Documentation (.docx or .pdf)			• Source Code Documentation pack to include (but not limited to): • Update on technical progress • Progress report against project schedule. • Review of risk management plan. • Commercial aspects. • Review of deliverables. • Risks/issues. • GFA and supplier performance	
D – 3	Option Delivery stage 3	T0+8 Months	Unreal Engine project, Compiled software (.exe), Documentation	n/a	O	Unreal Engine project and compiled software to include (but not limited to): • Implementation of requirements as agreed in the plan of work. Documentation pack to include (but not limited to): • Update on technical progress • Progress report against project schedule.	DEFCON 703 - ownership of IP vested in the Authority

			(.docx or .pdf)			• Review of risk management plan. • Commercial aspects. • Review of deliverables. • Risks/issues. • GFA and supplier performance	
D – 4	Option Final delivery	T0+11 Months	Unreal Engine project, Compiled software (.exe), Documentation (.docx or .pdf), Test cases demonstrating requirement.	n/a	O	Unreal Engine project and compiled software to include: • Implementation of requirements as agreed in the plan of work. • Source Code Documentation pack to include (but not limited to): • Review of deliverables. • GFA and supplier performance • Software user manual Test cases linked to requirements	DEFCON 703 - ownership of IP vested in the Authority

*Technology Readiness Level required

1.7	**Standard Deliverable Acceptance Criteria**
	As stated in terms and conditions.
1.8	**Specific Deliverable Acceptance Criteria**
	On receipt of the compiled software and Unreal Engine project, the software will be tested against the requirements listed within the SRS. This will include running the test cases designed by the organisation carrying out the development work. In addition tests will be carried out to ensure the Unreal Engine project can be compiled by Dstl and all required packages are included. The assessment will take place at Dstl Portsdown West and will last no longer than one month.

2.	**Quality Control and Assurance**
2.1	**Quality Control and Quality Assurance processes and standards that must be met by the contractor**
	☒ **ISO9001** (Quality Management Systems) ☐ **ISO14001** (Environment Management Systems) ☒ **ISO12207** (Systems and software engineering — software life cycle) ☒ **TickITPlus** (Integrated approach to software and IT development) ☒ **Other:** (Please specify below) Other standards similar to the above will also be considered, i.e. ISO 5055 instead of ISO 12207.
2.2	**Safety, Environmental, Social, Ethical, Regulatory or Legislative aspects of the requirement**
	Supplier to determine appropriate measures

3.	Security	
3.1	**Highest security classification**	
	Of the work	[redacted]
	Of the Deliverables/ Output	[redacted]
3.2	**Security Aspects Letter (SAL)**	
	Not applicable	
3.3	**Cyber Risk Level**	
	Very low	
3.4	**Cyber Risk Assessment (RA) Reference**	
	[redacted] If stated, this must be completed by the contractor before a contract can be awarded. In accordance with the Supplier Cyber Protection Risk Assessment (RA) Workflow please complete the Cyber Risk Assessment available at https://www.gov.uk/guidance/supplier-cyber-protection-service	

4.	Government Furnished Assets (GFA)				
GFA to be Issued - Yes					
GFA No.	**Unique Identifier/ Serial No**	**Description:**	**Available Date**	**Issued by**	**Return Date or Disposal Date (T0+)**

GFA-1	GFA-1	[redacted] examples of input files for battle models	T0+1	Dstl	Disposal T0+6
GFA-2	GFA-2	[redacted] examples of output files from two battle models (Linked to follow on work option related to displaying battle model results.)	TBD	Dstl	Disposal T0+6
GFA-3	GFA-3	[redacted] examples of trajectory model inputs files	T0+1	Dstl	Disposal T0+6
GFA-4	GFA-4	[redacted] examples of trajectory model output files	T0+1	Dstl	Disposal T0+6
GFA-5	GFA-5	Explanation of hierarchies for classifications, national prefixes, and caveats	T0+1	Dstl	Disposal T0+6

5.	Proposal Evaluation criteria
5.1	Method Explanation

Please submit two versions of your proposal. The Technical proposal should not contain any pricing information. The Commercial version should be a full response to the ITT including both Technical and pricing information.

After the submission deadline, the Authority will assess the proposals using the marking scheme outlined in section 5.2. The weighted technical score for a tender will be divided by the tender cost to produce the VFM Index metric. The tenders will be ranked by their VFM Index, with the highest being ranked top..

Example:

Tender	Technical Score	Cost (£k)	VFM Index	Rank
A	118	300	0.39	3
B	163	400	0.41	2
C	202	350	0.58	1

The Authority reserves the right to reject any tender response that scores '0', 1, or a 'Fail' for any Criteria.

The highest ranked, technically and commercially compliant tender will be selected subject to available funding.

In the event of two or more tenders achieving the same VFM Index, the tender with the highest weighted technical score will be selected.

The Authority approaches all contract pricing on the basis of the NAPNOC principle (No Acceptable Price, No Contract). The Authority reserves the right to not enter into any contract that is unacceptably priced or unaffordable. The maximum budget for the core work (excluding option cost) is £400,000.

The firm price for the core work should include all work up until 31st March 2025.

A firm priced option should be included for all work that will be carried out post 31st March 2025.

Both the core and the option work and price will be included in the evaluation.

5.2	Technical Evaluation Criteria

The technical quality of the tender will be assessed against the following criteria:

ID	Criteria	Score	Weighting	Maximum weighted Score
Relevant experience within the team				
1	Please describe in detail any relevant examples which demonstrate previous experience with Unreal Engine 5.	0 - 10	3	30
2	Please describe in detail any relevant examples which demonstrate previous experience of graphical user interface design.	0 - 10	2.5	25
3	Please describe in detail any relevant examples which demonstrate previous experience of 3D user interface development (this may include relevant examples of game development).	0 - 10	2.5	25
4	Please describe in detail any relevant examples which demonstrate previous C++ experience.	0 - 10	3	30
5	Please describe in detail any relevant examples of optimising graphics rendering.	0 - 10	2	20
6	Please describe in detail any relevant examples which demonstrate previous experience of software project planning and management.	0 - 10	2.5	25

7	Please describe in detail any relevant examples which demonstrate previous experience of the complete software development cycle, including development of user documentation and software tests.	0 - 10	2.5	25
Technical Approach				
8	Please describe the approach to development, and how it will work with decision points within the contract.	0 - 10	2.5	25
9	Please describe an initial plan of work based on the statement of requirement, which includes a timeline highlighting which aspects of the requirement will be completed by when.	0 - 10	3	30

The scores will be assigned using the following guide:

0 – Unacceptable or no answer	Has demonstrated inadequate experience or provided inadequate supporting evidence which gives no confidence of the Potential Tenderer's competence and an unacceptably high level of risk to the project
1 – Poor response with Very High risk	Has demonstrated narrow experience or provided minimal supporting evidence which gives low confidence of the Potential Tenderer's competence and a very high level of risk to the project.
4 – Satisfactory with Medium to High risk	Has demonstrated some experience and provided adequate supporting evidence which gives some confidence of the Potential Tenderer's competence and a medium to high level of risk to the project.

	7 – Good with Low to Medium risk	Has demonstrated broad experience and provided adequate supporting evidence which gives confidence of the Potential Tenderer's competence and a low to medium level of risk to the project.
	10 – Excellent with Very Low risk	Has demonstrated considerable and detailed experience and provided sound and relevant supporting evidence which gives high confidence of th e Potential Tenderer's competence and a very low level of risk to the project.
5.3	**Commercial Evaluation Criteria**	
	The commercial evaluation shall consists of the following Pass / Fail questions: 1. Proposal has been submitted with firm price for the core work, and a firm price option for post 31st March 2025 work 2. The proposal is fully compliant, and accepts, the terms and conditions in full 3. The proposal has included a Supplier Assurance Questionnaire (SAQ) in response to the specified Cyber Risk Assessment and the response has included the DCPP correspondence. 4. The proposal has included completed DEFFORM 47ST Annex A The proposal must Pass all the commercial criteria to be considered compliant.	