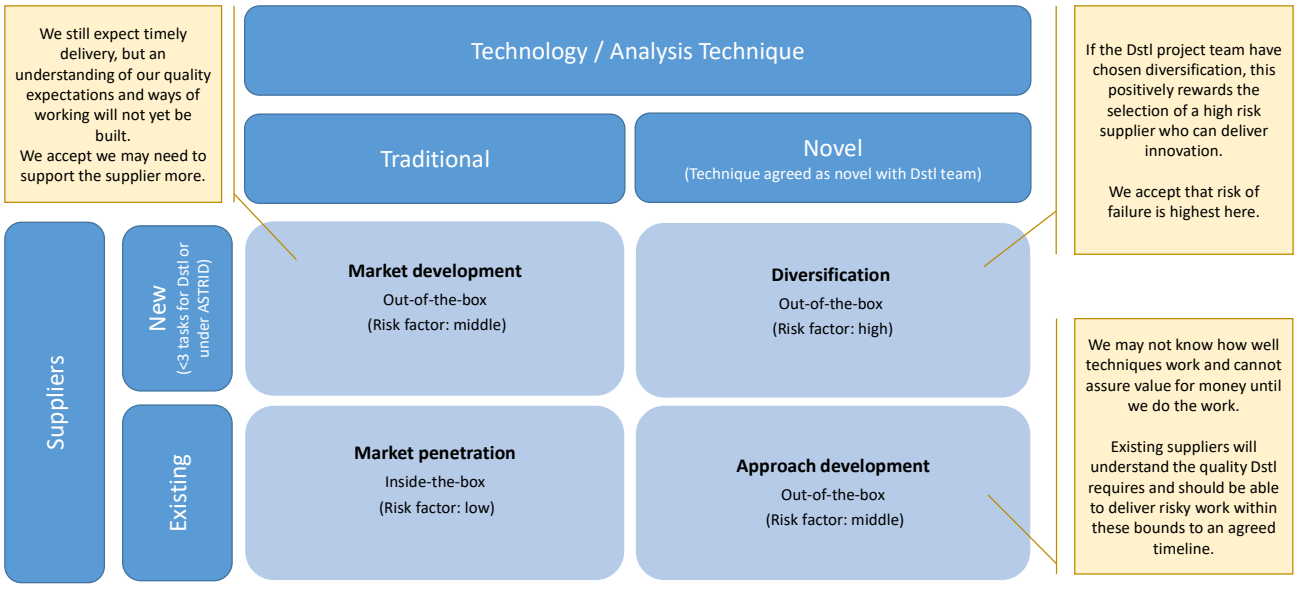
Statement of Requirement (SOR)

Contact & Project Information:

Project Manager	Name	Redacted under FOIA Section 40 – Personal information		
	Email	Redacted under FOIA Section 40 – Personal information		
	Telephone number	Redacted under FOIA Section 40 – Personal information		
Technical Partner	Name	Redacted under FOIA Section 40 – Personal information		
	Email	Redacted under FOIA Section 40 – Personal information		
	Telephone number	Redacted under FOIA Section 40 – Personal information		
CHESS PJ Number	PJ100687	**CHESS Leaf Code**	23EMRSTUDY	
Owning division	Exploration	**Delivering division**	Exploration	
Programme	Futures			
Indicative task budget(s) £k	Core / initial work:	Redacted under F	Options / follow on work:	£

Innovation risk appetite:	Middle - Approach development
Narrative (if applicable):	

Using the Ansoff matrix below, please indicate your risk appetite with regards to accepting innovative bids/solutions. The type of analysis/experimentation technique is included within 'Technology/Product'.



Use of Outputs: *(This section is used to inform risks, liabilities, mitigations and exploitation)*
Intended uses (including the approximate time before use and any key decisions that will use the output):
Provide a greater understanding of possible futures, which will inform decision making within DSTF.
Possible uses:
Sharing across the wider Dstl portfolio to support Futures thinking and understanding e.g. defence war gaming centre or futures advocates. Wider sharing across key DSTF stakeholders in order to inform their awareness of a range of possible futures.
Excluded uses:

Risk Assessment Process:

Project teams are required to complete the ASTRID Liabilities spreadsheet that will look at the direct and indirect risks associated with the work. The assessment must be completed at the outset before the draft SOR is submitted, this will prevent delays and lessen negotiations when the proposal is received.

The risk assessment spreadsheet can be found in the document list on the Redacted under FOIA Section 43 – Commercial Interest

Some generic risks are pre-filled so please ensure they apply to your task and delete/add as necessary. Each risk must be assessed in turn and a score entered in the spreadsheet. They will be automatically marked and a colour code produced. Please enter the results in the boxes below. A completed copy of the spreadsheet must be attached to this SOR when submitting it to the Redacted under FOIA Section 43 – Commercial for review and approval to release to CORDA.

Direct Risk	Redacted under FOIA Section 26 - Defence

In the event that a direct risk is scored as “Green” or “Yellow” the risk will be capped at pre-agreed limits of liability and the project team may continue with the submission of their requirement to CORDA once all necessary approvals have been issued by the Redacted under FOIA Section 43 – Commercial

In the event that a direct risk is identified as “Amber” or “Red” project teams should discuss the requirement with their Commercial POC before the task is submitted.

Indirect/Consequential Risk	Redacted under FOIA Section 26 - Defence

In the event that the indirect risk is “Excluded” project teams may continue with the submission of their requirement to CORDA once all necessary approvals have been issued by the Redacted under FOIA Section 43 – Commercia

In the event that the indirect risk is identified as “Included” project teams should discuss their requirement with their Commercial POC before the task is submitted.

Levels of Technical Assurance:

The framework can offer three levels of Technical Assurance Support, and you have the ability to determine which level is suitable for your task.

Full guidance listing the types of support under each level (and the trade-offs) can be found in the Redacted under FOIA Se or in the document list on the Redacted under FOIA Section 43 – Commercial Interes

It may be that the level of support you require changes in the early discussion phase. Please ensure the final version of your SOR has the correct level indicated.

Please indicate below which level you require

Minimum ☐	Standard ☒	Enhanced ☐

Statement of Requirement (SoR)

Project's document ref	
Version number	**2**
Date	**25/10/2022**

1.	**Requirement**
1.1	**Title (including AST/ prefix)**
	AST203/DSTF Futures Contextualise: Understanding Future Resource Requirements
1.2	**Summary**
	The DSTF Programme provides Defence with a single, comprehensive source of advice and direction on promising technologies and concepts we should prioritise. It examines how these technologies and concepts may be used and combined in future capabilities; the issues and challenges they could precipitate; and the S&T investments and policies we will need to adopt to develop them. This SOR aims to better understand how future resources, requirements, and dependencies of critical minerals and elements may help shape the future technological landscape.
1.3	**Background**
	The Defence S&T Futures Programme is at the heart of the new MoD S&T Portfolio, helping to identify, incubate and promote S&T to implement CSA's intent outlined within the S&T Strategy. Its aim is to provide a single, new and targeted focus for the S&T Portfolio in order to ensure that: "Defence is better prepared for the future through revitalised investment in S&T Future's activity to Identify potential, Incubate and rapidly test hypotheses and Promote emerging insights of generation after next science and technology. Providing the stimulus for an agile S&T portfolio and influencing key Defence decision making. Creating strategic advantage and addressing Defence risk through the exploitation of an evidence-based understanding of the potential impact of emerging insights from the Global S&T enterprise."

	Within the wider DSTF programme, the role of the Contextualise Project is to support the development, at pace, and the understanding of potential new concepts in the context of future operating environments. Contextualise is responsible for putting new concepts into perspective and understanding the impact they will have on Defence. Additionally, this will further our understanding of the UK's future strategic aspiration, as well as those of our adversaries, competitors, and other parties, and ascertain how these aspirations will impact our future direction of travel. One area of enduring interest is an understanding of the sources and supplies of the raw materials and resources on which many of the technologies that we currently take for granted depend. During the early part of 2021, with some effects and repercussions still reverberating around the globe, the global shortage of semi-conductors highlighted many of these dependencies. This not only included the lack of agility, with the semi-conductor foundries not being able to increase their outputs in response to wider demand in the supply chains, but also how vulnerable these supply chains were to wider environmental factors. For example, many commentators believe that another factor contributing to the semi-conductor shortage included a drought in Taiwan, the worst for 50 years, which left the Taiwanese foundries struggling to acquire sufficient quantities of water.

1.4	**Requirement**
	Work now continues to support Defence in its efforts to use the most innovative developments within the fields of science and technology. The intention of the work within DSTF Contextualise is twofold: • Help support wider understanding across the Defence and Security Futures community • Inform the wider Defence Futures programme on which technologies may best address future challenges and requirements, especially within the 'Generation after Next' space In order to provide this support, Defence seeks to identify and understand a number of issues related to future resource requirements. Although bids which include innovation in both approach and communication of case study findings are welcome, any proposals should aim to cover, as a minimum: • What are the critical resources which current technologies rely? (these resources include those with specific properties, such as rare earth metals, as well critical dependencies, such as the role of water in Taiwanese semi-Conductor production) o Where are these raw resources located? o Where are these raw resources currently extracted? o Where are these resources processed and refined? • What are the current costs of extraction and processing (economic, social, and environmental)? • Logistic supply routes (including control of these key routes and their fragility) • Understand control of the wider logistical chains, from extraction to final distribution – private enterprise, state and state controlled industries Future Trends and Demands • Points where future demands, due to predicted growths or new technologies, are anticipated to outstrip current supply capacity • Electric vehicles; increased digitisation (both within defence/security) and wider societal Resilience What are the key (low probability/high impact) events which could radically change our assumptions and assessments; e.g. development of commercially viable super-capacitors; meta materials; international agreements which dramatically change costs (potentially linked to. climate change or other environmental considerations and other international accords and agreements; human rights for staff/workers)

	The requirement outlined here is intended to provide an understanding of which resources may become increasingly critical to economies, at the national and global levels, and subsequent impact on future requirements, especially around the development of 'Generation After Next' technologies and concepts. This will enable defence to grow its capabilities and ensure it is focussed on tested, forward-looking tested science and technologies. **Contract and Task Management Expectations:** 1. Start up meeting to be held within one week of contract award at a mutually convenient time. Can be held virtually rather than face-to-face 2. Monthly Progress Updates and Reports. A monthly telephone call and/or video call with the Dstl Technical Partner (TP) at a mutually agreed time to discuss items including but not limited to: o Updates on progress against schedule o Discuss any risks and issues o Assess findings and allow a 'soft steer' on-going research. o Update on findings from previous 4 weeks research o Agreement on areas to develop further over coming 4 week period. The call will be preceded by an update report to the Dstl TP via email including but not limited to: o Update on technical progress o Progress report against project schedule. o Review of risk management plan. o Commercial aspects. o Review of deliverables. o Risks/issues. o Supplier performance
1.5	**Options or follow on work**
	Not Applicable

1.6	**Deliverables & Intellectual Property Rights (IPR)**

Redacted under FOIA Section 43 – Commercial Interest

*Technology Readiness Level required, if applicable

1.7	**Standard Deliverable Acceptance Criteria**
	Deliverable Acceptance Criteria (As per ASTRID Framework T&Cs) 1. Acceptance of Contract Deliverables produced under the Framework Agreement shall be by the owning Dstl or wider Government Project Manager, who shall have up to 30 calendar days to review and provide comments to the supplier. 2. Task report Deliverables shall be accepted according to the following criteria except where alternative acceptance criteria are agreed and articulated in specific Task Statements of Work: • 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. Reports shall be free from spelling and grammatical errors and shall be set out in accordance with the accepted Statement of Work for the Task. • 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. • 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 technical detail shall be sufficient to permit independent reproduction of any such process or system. 3. Failure to comply with the above may result in the Authority rejecting the Deliverables and requesting re-work before final acceptance. 4. Acceptance criteria for non-report Deliverables shall be agreed for each Task and articulated in the Statement of Work provided by the Contractor
1.8	**Specific Deliverable Acceptance Criteria**

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)
2.2	**Safety, Environmental, Social, Ethical, Regulatory or Legislative aspects of the requirement**
	There is no requirement for working from Dstl or other Defence sites. Any information and/or personal information shall be handled in accordance with the appropriate legislation (e.g. DPA, GDR).

3.	Security	
3.1	**Highest security classification**	
	Of the work	Redacted under FOIA Section 26 – Defence
	Of the Deliverables/ Output	Redacted under FOIA Section 26 – Defence
	Where the work requires more than occasional access to Dstl premises (e.g. for meetings), SC Clearance will be required.	
3.2	**Security Aspects Letter (SAL) – Note the ASTRID framework has an overarching SAL for quotation stage (up to OS)**	
	Redacted under FOIA Section 26 – Defence If yes, please see SAL reference- *Enter iCAS requisition number once obtained*	
3.3	**Cyber Risk Level**	
	Redacted under FOIA Section 26 – D	
3.4	**Cyber Risk Assessment (RA) Reference**	
	Redacted under FOIA Section 26 – Defence This must be completed before a contract can be awarded. In accordance with the Redacted under FOIA S	

4.	Government Furnished Assets (GFA)

GFA to be Issued - Redacted under FOIA Section 43 – Commercial Interest

Redacted under FOIA Section 43 – Commercial Interest

If GFA is to be returned: It must be removed from supplier systems and returned to the Dstl Project Manager within 2 weeks of the final Task deliverable being accepted. (Any required encryption or measures can be found in the Security Aspects Letter associated with the Task).

If GFA is to be destroyed: It must be removed from supplier systems and destroyed. An email confirming destruction should be sent to the Dstl Project manager within 2 weeks of the final Task deliverable being accepted

5.	Proposal Evaluation
5.1	**Technical Evaluation Criteria**
	Process will be as per ASTRID Framework T&Cs. If particular attention should be paid to certain aspects of the requirement, please confirm here:
5.2	**Commercial Evaluation Criteria**
	As per ASTRID Framework T&Cs.