



Automated audio capture and transcription for Defence wargaming

Summary of the challenge

Can you help us build a system to automatically capture audio and transcribe conversations and decisions in the rapid pace and high-pressure environment of a wargame?

HMGCC Co-Creation is launching a challenge in collaboration with jHub, the central innovation hub for UK Defence's Cyber & Specialist Operations Command.

In an increasingly uncertain world, the Ministry of Defence is increasing the frequency and intensity of training exercises. This includes wargaming: a scenario-based model in which the outcome and sequence of events affect, and are affected by, the decisions made by the players.

To modernise, improve data capture and increase pace of analysis, the conversations and decisions made during wargames need to be recorded, automatically transcribed and made easy to analyse.

HMGCC Co-Creation are launching this 12-week challenge to develop a full system including all hardware and software, to a proof of concept with minimum Technology Readiness Level 6, to automatically transcribe conversations.

HMGCC Co-Creation will provide funding for time, materials, overheads and other indirect expenses for successful applicants.

Technology themes

Acoustics, artificial intelligence, app development, audio, data analytics, digital services, information technology, machine learning, software development, systems engineering.

Key information

Total budget (ex VAT), up to	£60,000
Project duration	12 weeks
Competition opens	Monday 11 May 2026
Competition closes	Thursday 11 June 2026

Context of the challenge

HMGCC Co-Creation and jHub, working with the Ministry of Defence (MoD) are seeking solutions to modernise wargaming. Wargames are a crucial exercise for commanders, used for both training and evidence-based analysis.

Wargames are scenario-based warfare models, where outcomes and events affect, and are affected by, the decisions made by players. These exercises train players to evaluate situations and make decisions faster, and allow post-game analysis to deliver evidence-based observations

A wargaming event may have anywhere from 10 to 100 personnel, using a variety of different methods and technologies. A typical format is a structured tabletop exercise, sometimes played on a physical board or via an interactive digital interface. These events take place within a classified environment to protect sensitive information.

Central to the wargame is the analysis of the data captured during play. Part of this data is the transcript of discussion, assumptions and the reasoning behind decisions taken. This is analysed afterwards so that lessons can be learnt to improve decision making and to validate or disprove hypotheses.

See <https://cyberandspecialistoperationscommand.blog.gov.uk/2024/03/19/8-facts-to-level-up-your-knowledge-on-wargames/> for more information.

This challenge, launched by HMGCC Co-Creation, seeks a full solution to automatically capture and transcribe conversations within a classified wargame scenario.

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The gap

Transcription is currently a manual process, requiring large teams of trained data capturers working in parallel across different conversations. This often produces fragmented transcripts that require subsequent cleaning, reconciliation, and interpretation before analysis can begin.

The MoD wants to modernise how wargame data is captured, with a focus on audio capture and automated transcription. The solution should provide accurate real-time transcription, using a fully digital, technology-enabled approach capable of identifying unique speakers in real-time, capturing background comments, and accurately recognising specialised language.

While commercial technologies exist that address parts of this requirement, this challenge specifically requires a solution that operates within a classified environment and integrates with on-premises IT systems. This means that wireless solutions such as Bluetooth and cloud connected computing cannot be used.

Example use case

Colonel Spencer, a senior commander in the British Army, has commissioned Major Patel, a wargame instructor to design and run a wargame. Colonel Spencer's objective is to train her command team, identify strengths and weaknesses, and use this opportunity to prepare for real-world conflict.

Together they design a Camberley Kriegsspiel wargame. This uses a board showing a battlefield map, with imaginary troops and technology assigned to two opposing teams (blue and red team) and an umpire to adjudicate.

Each side has 20 players, comprising Army commanders and technical specialists, with a further 20 observers who analyse and critique decisions throughout the wargame.

The two teams move to a separate room to plan before deploying their strategy in a turn-based system. Neither team knows what the other is doing unless they make contact in combat or make discoveries through intelligence, surveillance, target acquisition and reconnaissance (ISTAR) activity.

Due to the fast pace of the Camberley Kriegsspiel wargame, there is little time for re-planning, and each team must quickly come to terms with outcomes of their decisions and to then counter the enemy.

As the game progresses, smaller groups splinter off to discuss options for their commander. Observers critique decisions and discuss alternative courses of action amongst themselves. As time runs out, and as one team edges closer to victory, the conversations become more animated and fast-paced.

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With 60 plus attendees, overlapping conversations, frequent interruptions, and specialised military language, capturing all discussions accurately is a significant challenge.

Major Patel addresses this using the newly commissioned auto-transcriber. An array of wired microphones deployed throughout the training facility feed into a central server running an algorithm that can assign streams of speech to specific players or observers. Each stream is captured and tagged with the speaker, timestamp and context. Dedicated reviewers can make corrections in near real time, improving accuracy as the session progresses, with the analyst team then assessing whether the original objective has been met, feeding back rapidly to Colonel Spencer.

Project scope

This challenge focuses on building an entire solution, including the hardware and software, to auto transcribe conversations in a complex wargaming scenario. After the 12-week project, we require a minimum Technology Level Readiness 6 system – technology model or prototype demonstration in a relevant environment. The deliverable will be a prototype delivered to MoD sponsors for further testing.

Essential requirements:

- Deliver a full system prototype to capture audio, process and transcribe audio.
- Ability to record audio continuously for 12 hours. Off-the-shelf audio capture devices are acceptable.
- Automatic transcription must be as accurate as possible.
- Transcription must be available immediately as conversations occur, enabling authorised users to review and correct errors during play.
 - Solutions that only provide post-turn or post-event transcription are insufficient.
- Ability to identify speakers and attribute them to a role (for example blue team leader)
- Ability to accurately identify domain specific terminology and acronyms.
- Confidence scoring of transcription accuracy and speaker identification.
- Transcription must be in an OpenDocument Text format with the raw file also retained.
- The system must support a minimum of 18 simultaneous speakers and 60 total wargame players.
- Natural language query of transcripts.
- Customisable tagging of transcript with contextual insights such as team membership and the context of the conversation.
- The solution provider must gain Cyber Essentials prior to contract award and Cyber Essentials Plus prior to project kick-off.
- Proposals must consider how GDPR, legal and MOD policy compliance will be managed.

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- Proposals must consider how anonymisation of Personal Identifiable Information will be managed.
- Must be secure by design. The sponsors will work with the solution provider to assure this. This includes robust supply chain security.

Desirable requirements:

- Portability across rooms and locations.
- Ability to learn identify domain specific terminology and acronyms.
- Live audio review with administrator rights to allow correction of transcription in real time.
- Ability to tag individual transcript segments.
- Intuitive and easy to use user interface.
- Accessibility controls, such as the ability to change text size, front and colour.

Constraints:

- The tool must operate without an internet connection or cloud computing connection.
- All components, including microphones and computing hardware, must be wired. Use of wireless protocols such as Bluetooth will not be accepted.
- The solution should use commercially available graphic processor units (GPUs) rather than specialised hardware.
- Audio capture devices must be discreet and not inhibit the wargame players experience.

Not required:

- Horizon scanning or a pure paper study.

Dates

Competition opens	Monday 11 May 2026
Briefing call [MS Teams link here]	Monday 1 June 2026
Clarifying questions deadline	Monday 1 June 2026
Clarifying questions published	Wednesday 3 June 2026
Competition closes	Thursday 11 June 2026
Applicants notified	Tuesday 23 June 2026

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Pitch Day	Wednesday 1 July 2026
Pitch Day outcome	Tuesday 7 July 2026
Commercial onboarding begins*	Friday 10 July 2026
Target project kick-off	August 2026

*Please note, the successful solution provider will be expected to have availability for a one-hour onboarding call via MS Teams on the date specified to begin the onboarding/contractual process.

Eligibility

This challenge is open to sole innovators, industry, academic and research organisations of all types and sizes. There is no requirement for security clearances.

Solution providers or direct collaboration from [countries listed by the UK government under trade sanctions and/or arms embargoes](#), are not eligible for HMGCC Co-Creation challenges.

How we evaluate

All proposals, regardless of the application route, will be assessed by the HMGCC Co-Creation team. Proposals will be scored 1-5 on the following criteria:

Feasibility	<ul style="list-style-type: none"> • What is the technical credibility of the minimum viable product proposed? <ul style="list-style-type: none"> ○ Is it technically possible? ○ Are there key technical risks overlooked? • Likelihood of the minimum viable product reaching or exceeding the minimum required Technology Readiness Level (TRL)? <ul style="list-style-type: none"> ○ Does the proposal aim to reach the minimum TRL? ○ Assessors' confidence in the proposal from technical perspective? ○ Will the proposal exceed the minimum TRL? • Credibility of the team regarding technical and project management skills? <ul style="list-style-type: none"> ○ Does the team have all the relevant expertise? ○ How experienced are they? ○ Have they delivered something similar before?
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Desirability	<ul style="list-style-type: none"> • How closely does the proposal directly address the challenge? <ul style="list-style-type: none"> ○ Does the proposal achieve all essential requirements? ○ How many desirable requirements are achieved? ○ Is this something the user's want? • How well is the benefit for government and dual-use described? <ul style="list-style-type: none"> ○ Is the benefit to the user's well described? ○ Have the applicants identified dual-use markets? • Ambition of the proposed solution? <ul style="list-style-type: none"> ○ Does the solution provide an incremental step in capability or significant leap? ○ Is the proposed solution unique to the applicants?
Viability	<ul style="list-style-type: none"> • How well is the exploitation route described? <ul style="list-style-type: none"> ○ Is the proposal just aiming to deliver the minimum for the project? Or have they got a project plan post phase 1? ○ Are they thinking about commercial exploitation routes? ○ Are there rough costings for future work? • How well does the proposal demonstrate value for money and are the costs broken down and justified? <ul style="list-style-type: none"> ○ How much time and resource is spent on a project for the cost? ○ Is there a perceived high ambition for the cost? ○ Is there a robust costing plan? • How well is the project delivery described leading to the minimum viable product? <ul style="list-style-type: none"> ○ Is there a Gantt chart or similar? ○ Are there proposed outcomes after each sprint? ○ Are the applicants experienced in Agile methodology?
Budget	<ul style="list-style-type: none"> • Are the project finances within the competition scope?

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Invitation to present

Successful applicants will be invited to a pitch day, giving them a chance to meet the HMGCC Co-Creation team and pitch the proposal during a 20-minute presentation, followed by questions.

After the pitch day, a final funding decision will be made. For unsuccessful applicants, feedback will be given in a timely manner.

Clarifying questions

Clarifying questions or general requests for assistance can be submitted directly to cocreation@hmgcc.gov.uk before the deadline with the challenge title as the subject. These clarifying questions may be technical, procedural, or commercial in subject, or anything else where assistance is required. Please note that answered questions will be published to facilitate a fair and open competition.

How to apply

Please submit your application on the [HMGCC Co-Creation website](#). Any queries please email co-creation@dstl.gov.uk and cocreation@hmgcc.gov.uk.

All information you provide to us as part of your application will be handled in confidence.

Applications **must** be no more than six pages or six slides in length. HMGCC Co-Creation reserves the right to stop reading after six pages if this limit is breached. The page/slide limit excludes title pages, references, personnel CVs and organisational profiles.

There is no prescribed application format, however, please ensure your application includes the following:

Applicant details	Contact name, organisation details and registration number.
Scope	Describe how the project aligns to the challenge scope.
Innovation	Describe the innovation and technology intended to be delivered in the project, along with new IP that will be generated or existing IP that can be used.
Deliverables	Describe the project outcomes and their impacts.

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Timescale	Detail how a minimum viable product will be achieved within the project duration.
Budget	Provide project finances against deliverables within the project duration.
Team	Key personnel CVs and expertise, organisational profile if applicable.

Co-Creation terms and conditions

Proposals must be compliant with the [HMGCC Co-Creation terms and conditions](#); by submitting your proposal you are confirming your organisation's unqualified acceptance of Co-Creation terms and conditions.

Commercial contracts and funding of successful applications will be engaged via our commercial collaborator, Cranfield University.

HMGCC Co-Creation supporting information

[HMGCC](#) works with the national security community, UK government, academia, private sector partners and international allies to bring engineering ingenuity to the national security mission, creating tools and technologies that drive us ahead and help to protect the nation.

[HMGCC Co-Creation](#) is a partnership between [HMGCC](#) and [Dstl](#) (Defence Science and Technology Laboratory), created to deliver a new, bold and innovative way of working with the wider UK science and technology community. We bring together the best in class across industry, academia, and government, to work collaboratively on national security engineering challenges and accelerate innovation.

HMGCC Co-Creation aims to work collaboratively with the successful solution providers by utilising in-house delivery managers working [Agile](#) by default. This process will involve access to HMGCC Co-Creation's technical expertise and facilities to bring a product to market more effectively than traditional customer-supplier relationships.

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FAQs

1. Who owns the intellectual property?

As per the HMGCC Co-Creation terms and conditions, project IP shall belong exclusively to the solution provider, granting the Authority a non-exclusive, royalty free licence.

2. Who are the end customers?

National security users include a wide range of different UK government departments which varies from challenge to challenge. This is a modest market and so we would encourage solution providers to consider dual use and commercial exploitation.

3. What funding is eligible?

This is not grant funding, so HMGCC Co-Creation funds all time, materials, overheads and indirect costs.

4. How many projects are funded for each challenge?

On average we fund two solution providers per challenge, but it does come down to the merit and strength of the received proposals.

5. Do you expect to get a full product by the end of the funding?

It changes from challenge to challenge, but it's unlikely. We typically see this initial funding as a feasibility or prototyping activity.

6. Is there the possibility for follow-on funding beyond project timescale?

Yes it is possible, if the solution delivered by the end of the project is judged by the HMGCC Co-Creation team as feasible, viable and desirable, then phase 2 funding may be made available.

7. I can't attend the online briefing event, can I still access this?

If a briefing event is held, any questions (and answers) will be captured and published after the event. The call itself is not recorded and use of AI notetakers is not permitted.

8. Do we need security clearances to work with HMGCC Co-Creation?

Our preference is work to be conducted at [OFFICIAL](#), we may however, request the project team undertake [BPSS](#) checks or equivalent.

9. We think we have already solved this challenge, can we still apply?

That would be welcomed. If your product fits our needs, then we would like to hear about it.

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10. Can you explain the Technology Readiness Level (TRL)?

Please see the [UKRI definition](#) for further detail.

11. Can I source components from the list of restricted countries, e.g. electronic components?

Yes, that is acceptable under phase 1 - feasibility, as long as it doesn't break [UK government trade restrictions and/or arms embargoes](#).

Further considerations

Solution providers should also consider their business development and supply chains are in-line with the [National Security and Investment Act](#) and the National Protective Security Authority's ([NPSA](#)) and National Cyber Security Centre's ([NCSC](#)) [Trusted Research](#) and [Secure Innovation](#) guidance. NPSA and NCSC's [Secure Innovation Action Plan](#) provides businesses with bespoke guidance on how to protect their business from security threats, and NPSA and NCSC's [Core Security Measures for Early-Stage Technology Businesses](#) provides a list of suggested protective security measures aimed at helping early-stage technology businesses protect their intellectual property, information, and data.

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