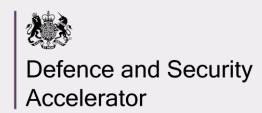




Scoping out the Grey Zone: Sub-threshold Al

Competition Launch Webinar

25 April 2023, 10am - 12pm

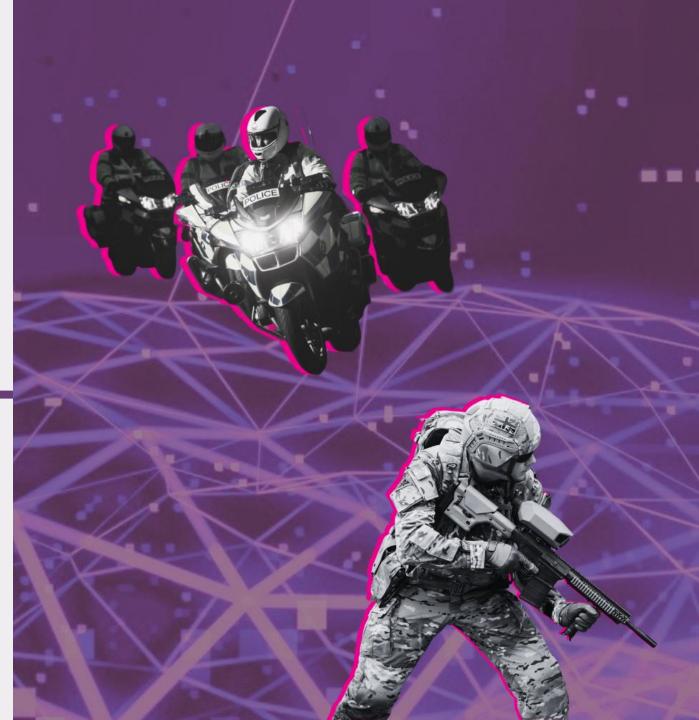


Welcome and Housekeeping

Joanne Bevan
Competition Delivery Manager







Housekeeping

- Welcome to today's launch Q&A for the new DASA competition: Scoping out the Grey Zone: Sub-threshold Al
- Please note your camera and microphone will be kept off
- Today's event will be recorded (audio only) and the slides and recording will be made available afterwards via the competition page on the DASA Gov.uk site
- Discussions will remain at OFFICIAL
- Q&A session will take place after via Slido. To access, go to the website www.sli.do (on a separate tab or device) and enter the code #GREYZONE
- If you are having any technical issues, please use the chat function in Teams.

Q&A

How to submit questions

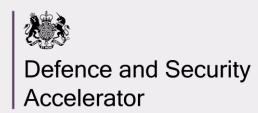
Please submit or upvote any questions via slido



- Scan above, or go to website sli.do and enter code #GREYZONE

Agenda

Time	Description	Speaker
10.00 – 10.05	Welcome and Housekeeping	Joanne Bevan DASA Delivery Manager
10.05 – 10.20	Overview of DASA	Tom Adamson DASA Innovation Partner
10.20 – 10.45	Overview of Competition: Scoping out the Grey Zone: Sub Threshold Al	Brendan Neeson DSTL Principle Scientist
10.45 – 11.00	Break – opportunity to submit questions via Slido (website sli.do, code #GREYZONE)	
11.00 – 11.50	Open Q&A	Competition team
11.55 – 12.00	Closing remarks	Joanne Bevan DASA Delivery Manager

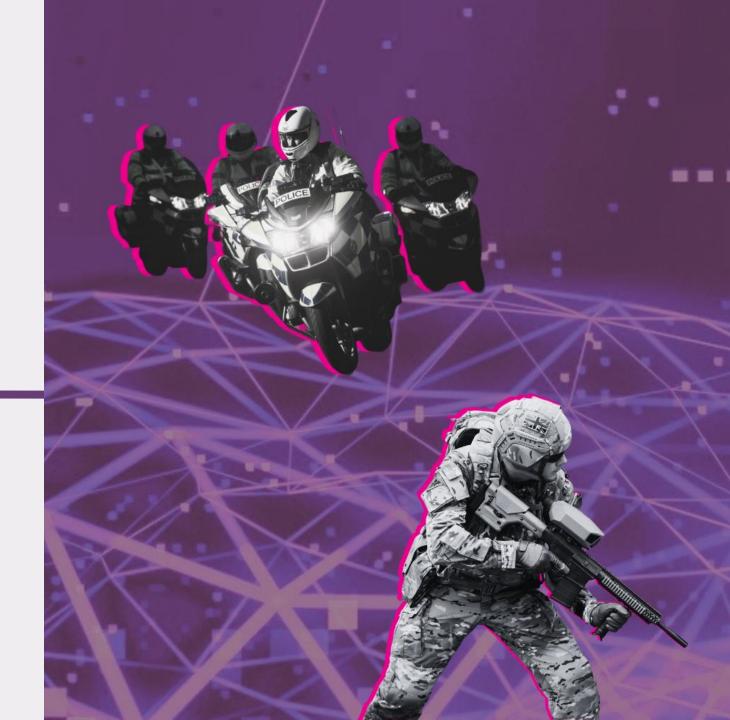


DASA Overview

Tom Adamson Innovation Partner







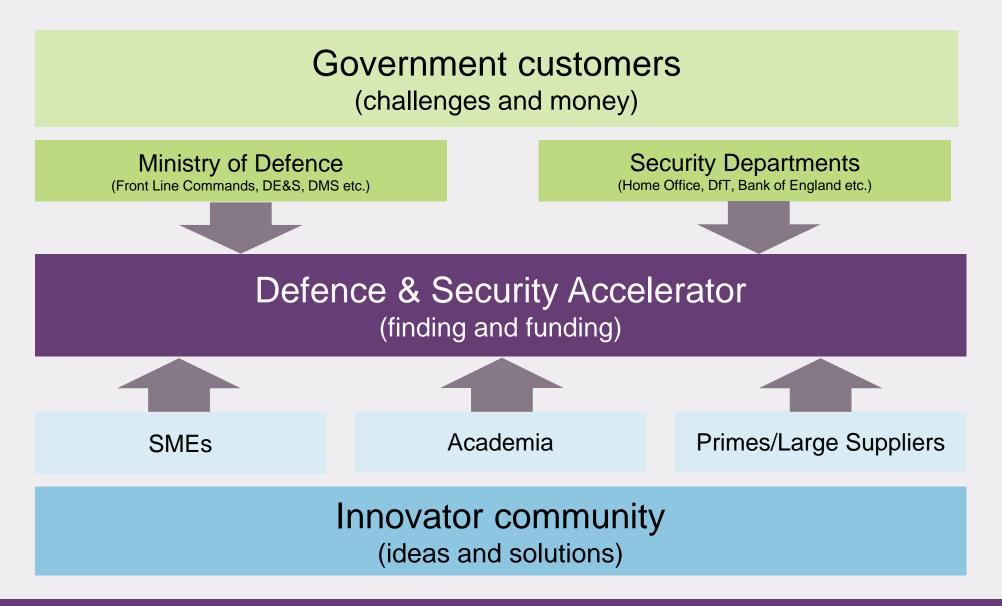


Our Mission

ABOUT US

We find and fund exploitable innovation to support UK defence and security quickly and effectively, and support UK prosperity.

How do we work?



Our Offer

Finding Innovation:

- Market Explorations
- Innovation Portal
- Innovation Outlines

Funding Innovation:

- Open Call for Innovation
- Themed Competitions
- Defence Technology Exploitation Programme
- Defence Innovation Loans

... plus **post-funding support** to help build the business

DASA is set up to accelerate innovative ideas towards impact and help businesses succeed.

- Intellectual property stays with the innovator
- Quick, simple application process
- Innovation Partners provide advice and guidance at initial stages
- Project Managers and Technical Partners to support delivery of the projects
- Post-funding support to help innovators pull ideas through to impact
- Generally 100% funding through Open call and Themed Competitions



Innovators

Why do innovators work with us?

1 in 5

proposals funded



57%

Contracts awarded to SMEs



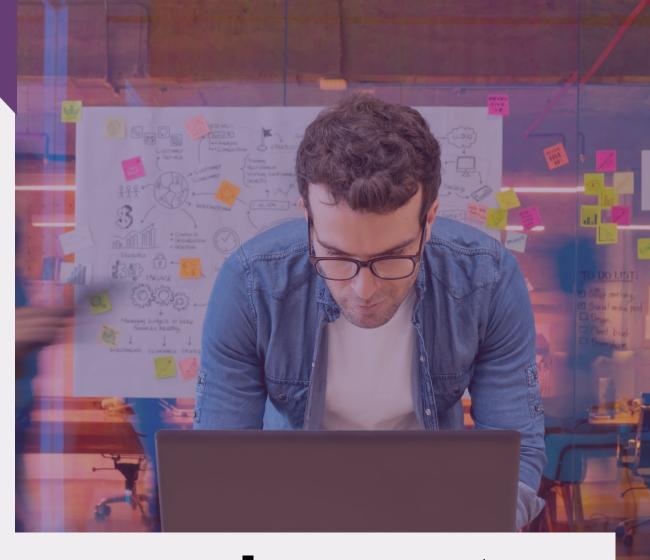
£50-170k

Typical funding amount



Up to 4X
leveraged through follow on investment





Innovators

Meet the Team

Our Innovation Partners help innovators throughout the UK and abroad understand opportunities across the defence and security community.

How to contact us:

- Visit www.gov.uk/dasa and click
 'Get in touch with DASA'
- Submit an 'Contact DASA' form
- Attend regional outreach events
- Follow us on social media



Andrew Peaty West Midlands



Clare Green Yorkshire and Humber



Jas Shanker East Midlands



Jonathan
Jones
North West



Mike Madden South West



Anna Taylor North East



Paul Alderton South East



Ralph Wilkins London



Vicki Savage East of England



Tom Adamson Wales



Deb Carr Scotland



Linda Galloway International

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Scoping Out the Grey Zone: Sub-threshold Al

DASA Themed Call



Background



HMG Integrated Review Refresh (2023)

- Artificial Intelligence a key innovation area for S&T
- Systemic Competition
 - Including below the threshold of armed conflict
 - HMG "will further strengthen the UK's ability to tackle state and non-state threats below the level of armed conflict"

"We will also continue to develop our broader deterrence and defence toolkit, including information operations.....and make greater use of open source information alongside our intelligence capabilities"

Defence AI Strategy



Defence Artificial

Intelligence Strategy

Approach to delivering AI enabled capability in Defence

- Ambitious in terms of the tools and operational effects we seek to deliver;
- Enable rather than constrain the delivery of those tools and effects; and
- Deliver and use AI-enabled capability in a safe and responsible manner.
 - Legal
 - Ethical
 - Trusted



4	C

Aims of Our Research



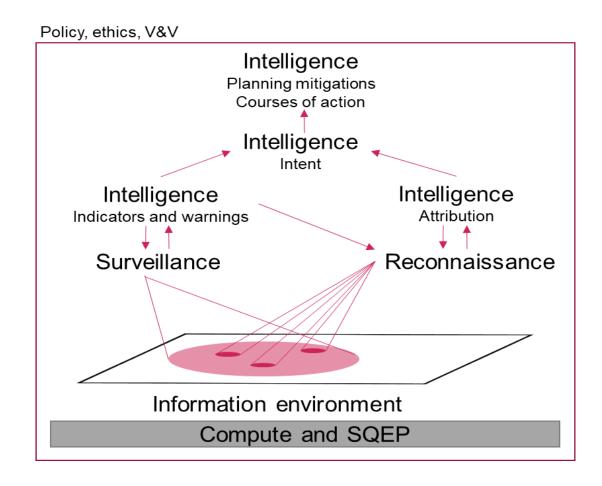
Research technologies to enable the UK to conduct Intelligence, Surveillance and Reconnaissance (ISR) of the **sub-threshold Information Environment***

- Understand actions in the sub-threshold, and to be able to identify which are (or appear to be) malign
- Increase UK ability to understand the implications and reach of activities in the sub-threshold
- Attribute actions to actors
- Identify likely or plausible intent or consequences
- Propose plausible response options
- * A diverse global environment that consists of the physical, virtual and the cognitive dimensions where humans and automated systems observe, orient, decide and act on data, information and knowledge

What is the Sub-threshold?



- The sub-threshold encapsulates all activity up to, but not crossing, the legal definition of armed conflict.
- 57 activities of potential interest, across Diplomatic, Information, Military and Economic dimensions identified
- We then developed a simplified ISR model of the Sub-threshold information environment



Challenge Areas



1. Indicators and Warnings

Applying AI techniques to detect individual indicators & warnings relevant to the sub-threshold information environment

"Establishing competitive advantage in the subthreshold in an environment of constant competition."

2. Intent and Attribution

Attributing actions to actors and providing insight into the intent behind them

3. Courses of Action

Developing the capabilities required to support human machine teams in the generation and evaluation of courses of action

1. Indicators & Warnings



Can we identify potentially hostile activity using AI?

- Can we validate information in publicly available (open-source) information
- Can we identify manipulated media e.g. video, imagery, text, audio?
- Can we detect and characterise the spread of narratives?
- Can we detect attempts to acquire or monopolise technologies or natural resources?

2. Intent & Attribution



Having identified potentially hostile activity (challenge 1) can we use Al to:

- Attribute these actions to the Adversaries directing them?
- Understanding the Adversary's intent and aims?
- Understand how Adversary activity in the information environment is received by the adversaries target audience?

3. Courses of Action (CoA)



This a demanding challenge area

how could AI technology be applied to support the generation of CoAs to counter Adversary sub-threshold activity in the Information Environment?

- Examples could include (not limited to):
 - Al for wargaming?
 - Decision support in the subthreshold using AI
 - Al to formulate and plan Information Operations and evaluation of these

What We Want from You



- Ambitious, Safe, Responsible (Defence Al Strategy)
- Developing or enhancing technology / software tools / demonstrators to enable
 Defence analysts to overcome these problems
 - At machine speed, at the volumes of data encountered, verified and validated outputs
 - Human machine teaming
- We are interested in submissions across a range of maturity levels up to TRL 6

Sub-Threshold





Sub-threshold
activity often
precedes and
coincides with overt
military action

dstl The Science Inside

Discover more











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Break - back at 11am

Please submit or upvote any questions via slido



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Q&A

Website sli.do
Code #GREYZONE
Or scan →



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Closing remarks

- Thank you for attending this Q&A event
- We will post this presentation and the Question and Answer session on the competition pages. Please sign up for alerts to remain up to date
- Help is available from DASA Innovation Partners







accelerator@dstl.gov.uk



01980 950000 option 3



www.gov.uk/dasa



@DASAccelerator



Defence and Security Accelerator