Defence and Security Accelerator | Home Office | National Protective Security Authority

Protecting Physical Assets from Uncrewed Aerial Systems Attack

Briefing and Q&A Session

May 2 2024

DASA INNOVATION FOR A SAFER FUTURE

Innovation for a Safer Future

Agenda

Time	Item	Presenter
13:30 – 13.35	Introduction, Housekeeping	**Robert Hammond-Smith** DASA Delivery Manager
13:35 – 13:45	Introduction to DASA	**Mike Madden** DASA Innovation Partner
13:45 – 14:00	Protecting Physical Assets from UAS Attack Competition	**Joanna** Counter Drones, NPSA
14:00 – 14:10	Break - opportunity to submit questions via Slido website sli.do, code #DASACUAS	
14:10 – 14:55	Question & Answer Session	Competition Team
14:55 – 15:00	Wrap Up	**Robert Hammond-Smith** DASA Delivery Manager

© Crown Copyright 2024

Housekeeping

- Welcome to today's Briefing and Q&A for the new DASA competition: Protecting Physical Assets from Uncrewed UAS
- Please note your camera and microphone will be kept off.

- The slides and the anonymised questions and answers will be uploaded afterwards to the DASA gov.uk website.

- 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 **#DASACUAS.**

© Crown Copyright 2024

Submitting Questions

Please submit or upvote any questions via slido

Scan above, or go to the website sli.do and enter the code #DASACUAS

© Crown Copyright 2024

Introduction to DASA

Mike Madden

DASA Innovation Partner

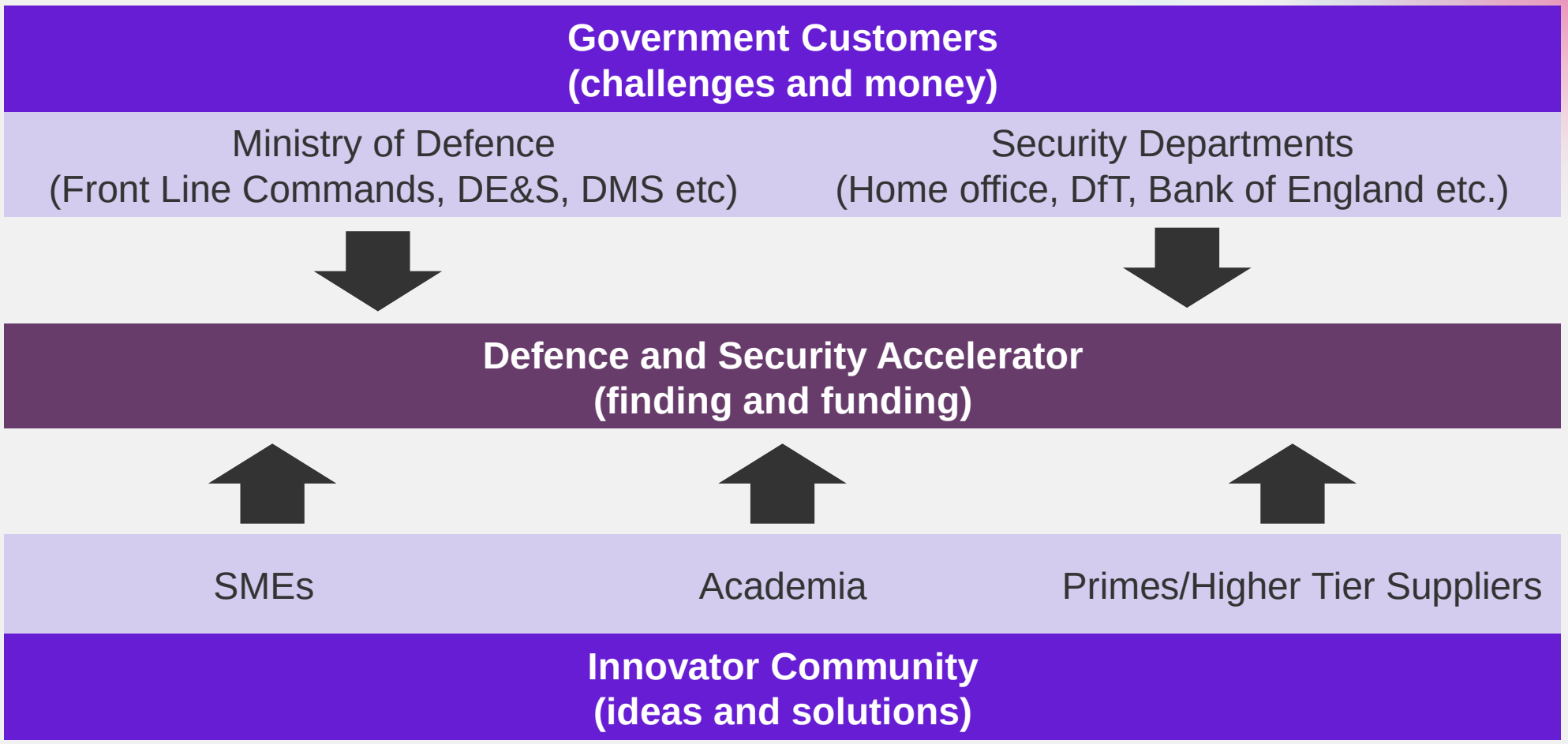
DASA INNOVATION FOR A SAFER FUTURE

Our Mission

The Defence and Security Accelerator (DASA) finds and funds exploitable innovation to support UK defence and security quickly and effectively, and support UK prosperity.

© Crown Copyright 2024

How do we work?



© Crown Copyright 2024

Since 2016…

114

Funding Competitions

606

Innovators Supported

1461

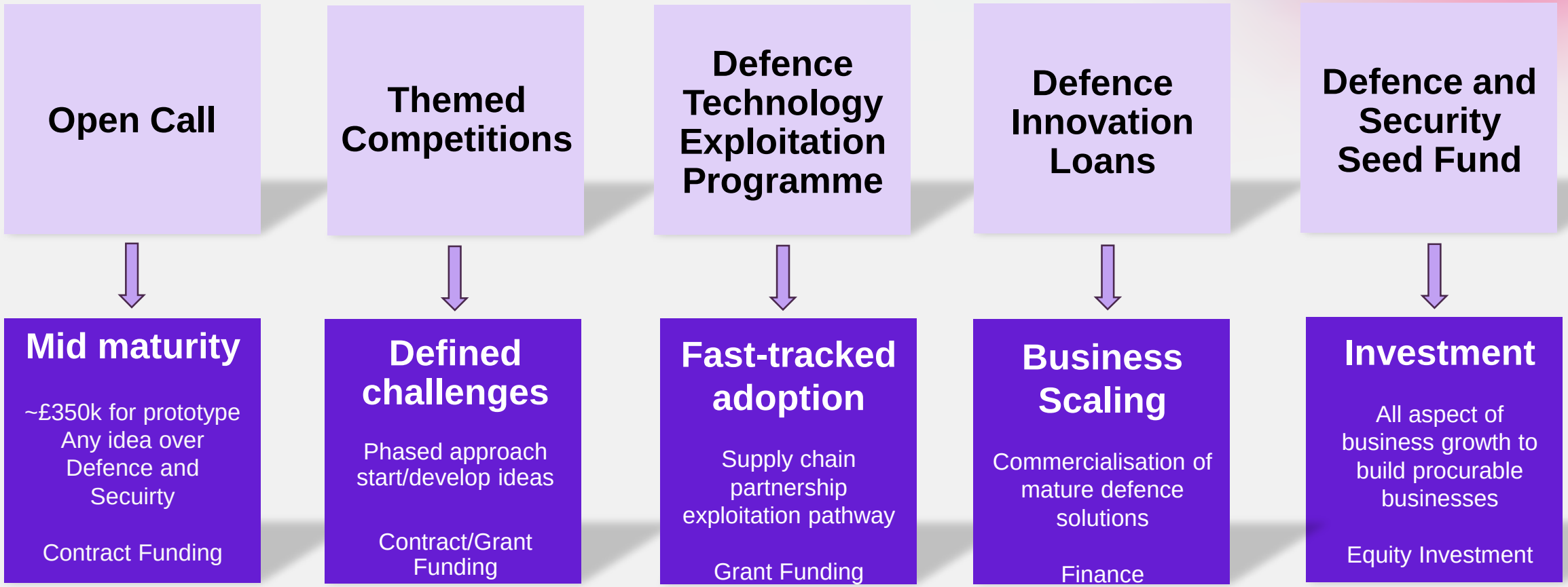
Ideas Accelerated

£263m

Invested in innovation

© Crown Copyright 2024

Funding Innovation



© Crown Copyright 2024

Meet the team

Andrew Peaty
West Midlands

Jas Shanker
East Midlands

Clare Green
Yorkshire &
Humber

Jonathan
Jones
North West

Anna Taylor
North East

Mike Madden
South West

Mark Helliker
South East

Ralph Wilkins
London

Vicki Savage
East of England

Tom Adamson
Wales

Deb Carr
Scotland

Innovation Partner
International

© Crown Copyright 2024

DASA INNOVATION FOR A SAFER FUTURE

[dstl] The Science Inside

Home Office

National Protective Security Authority

Protecting Physical Assets

From UAS Attack

Themed Competition

Background: Last Line of Defence

The war in Ukraine has demonstrated the vulnerability of a wide range of military and civilian assets to UAS being used as part of a kinetic attack.

The three main limitations in the deployments of C-UAS technologies identified:

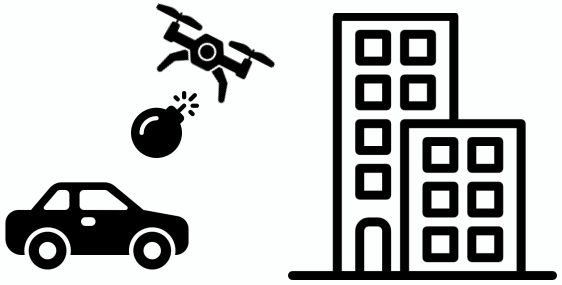
- The technologies are not always located in the right place to prevent a UAS attack
- The difficulty of maintaining a cohort of trained personnel who are also located in the right place to prevent a UAS attack
- The technology doesn't fully mitigate the ever-developing UAS capabilities and tactics deployed to circumvent these technologies.

Scope: Threat Mitigation

The threat - one or more UAS being used as a weapon to fly into an asset and/or drop an explosive payload onto an asset.

Key scenarios are interested in:

- Scenario 1: Protection of a permanent asset (static)
- Scenario 2: Protection of a temporary asset (static)
- Scenario 3: Protection of an asset on the move



Proposal constraints:

- countermeasures should be **covertly or discreetly deployed** (i.e. to avoid detection by aerial surveillance)
- If not already installed, the system needs to be **rapidly & remotely deployable** either by an operator or automatically

Scope: Threat Mitigation

Out of scope

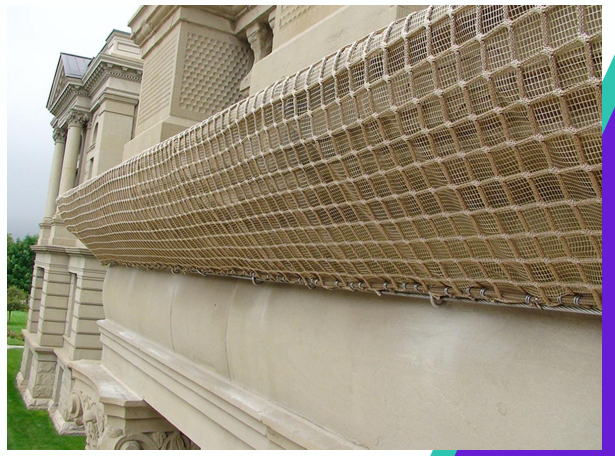
Technology which looks to **directly target the drone** (rather than protecting the asset) either by:

- Electronically i.e. to jam, take control, or spoof the command link or GNSS of a UAS.

- or by using an active kinetic effect on the drone (i.e. high intensity lasers, EMPs, ammunition, etc.)

- Drone vs. Drone technology

Challenge 1: Protecting a Static Asset



The solution should be:

- deployable in a covert manner
- easily hidden or masked so that basic reconnaissance will not be able identify the mitigation
- rapidly deployable by a remote operator if there is a credible UAS threat inbound.

For temporary assets, the solution needs to be:

- easily redeployable, i.e. portable or semi-portable to react to a change in threat

Challenge 2: Protecting an Asset on the Move

The systems need to be

- fully portable rather than easily deployable so that they can moved with the asset
- rapidly deployable/initiated remotely to protect the asset as the last line of defence
- deployable in a covert manner, easily hidden or masked so that basic reconnaissance will not be able identify the mitigation

What are we interested in?

- Methods of robustly denying current and next generation drones from kinetic attacks against a range of assets
- Solutions against threats from different sized UAS, with varying payload capabilities
- Solutions that can protect a range of asset sizes
- Low cost solutions
- Limited training and operator burden
- Working designs at at least TRL 4 or 5
- TRL 8 or 9 solutions which have been designed for other industries, but could be applied to the C-UAS market
- Demonstrate potential for translation to practical demonstration in later phases

- Too complex for non-specialist operators, are expensive, or cannot be scaled
- Constitute consultancy, paper-based studies or literature reviews without any view of future innovation
- Resubmissions of a previous DASA bids
- Offer demonstrations of off-the-shelf products requiring no experimental development (unless applied in a novel way to the challenge)
- Offer no real long-term prospect of integration into defence and security capabilities
- Offer no real prospect of out-competing existing technological solutions

How to Apply

Submission deadline
Midday on 13 June 2024 (BST)

Where do I submit my proposal?
Via the DASA Online Submission Service for which you will be required to register.
https://www.gov.uk/government/collections/defence-and-security-accelerator-submit-your-research-proposal

Only proposals submitted through the DASA Online Submission Service will be accepted.

Total funding available
The total funding available for this competition is £150,000 per proposal (excluding VAT).

How many proposals will DASA fund
We are hoping to fund between 5 and 6 proposals

Assessors and Interested Parties

Home Office

National Protective Security Authority

NPCC National Police Chiefs' Council

[dstl]

Question and Answers

Please submit or upvote any questions via slido

Scan above, or go to the website sli.do and enter the code #DASACUAS

© Crown Copyright 2024

Closing remarks

- Thank you for attending this Q&A event
- The slides from today's event along with the anonymised questions and answers with be uploaded to the competition page on the gov.uk website in the coming days.
- We also invite you to book a 1-2-1 session with the customer team if you have any further questions you would like to ask.
- Slots are available on:
  - 1-2-1 Session **May 9 2024**
  - 1-2-1 Session **TBC 2024**
- The link to these sessions can be found on the competition page on Gov.uk

© Crown Copyright 2024

Contact us

www.gov.uk/DASA

@DASAccelerator

accelerator@dstl.gov.uk

Defence and Security Accelerator

01980 950000 option 3

© Crown Copyright 2024

Thank you for attending!

We look forward to receiving your submissions by 12:00 hrs (BST) on June 13 2024.

© Crown Copyright 2024