

Populating the World of Training

Q&A Webinar

17 March 2023, 10:00 – 11:30 GMT

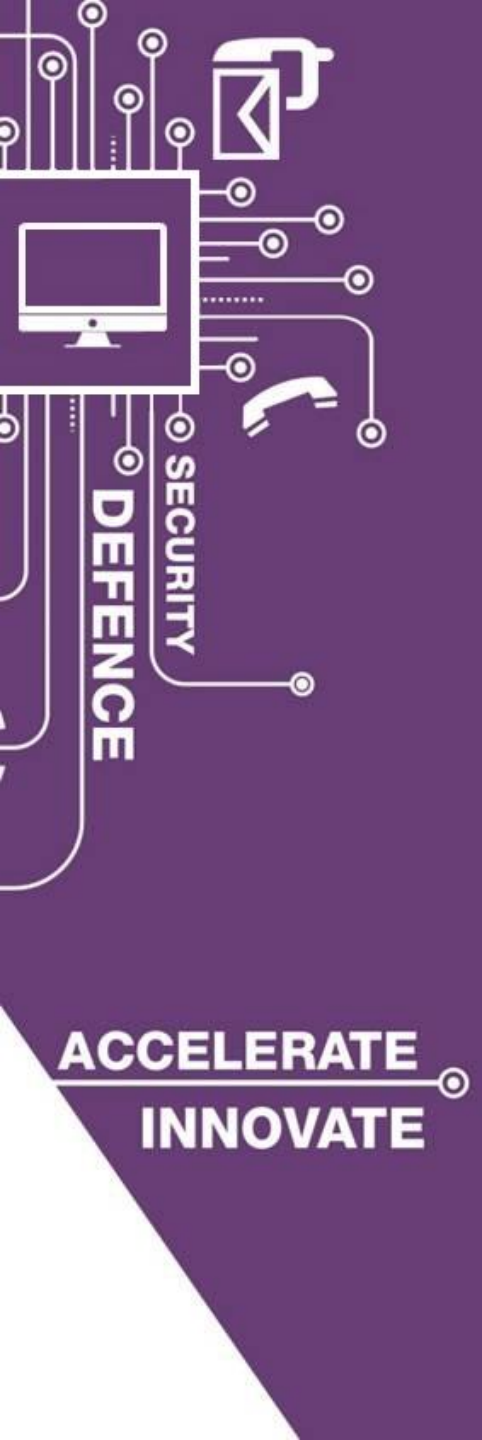
ACCELERATE
INNOVATE



Defence and Security
Accelerator

Welcome and Housekeeping

Patrick Ralph, DASA Associate Delivery Manager





Housekeeping

- Welcome to today's Q&A for the new DASA competition: 'Populating the World of Training'- Phase 1
- Please note your camera and microphone will be kept off
- Optimum view: Active speaker (found in top right of the main viewing screen)
- 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 #DASA
- If you are having any technical issues, please use the chat function in Teams
- Today's event will be recorded (audio only) and the slides and recording will be made available afterwards. Q & A will be posted to the competition page on the DASA Gov.uk site





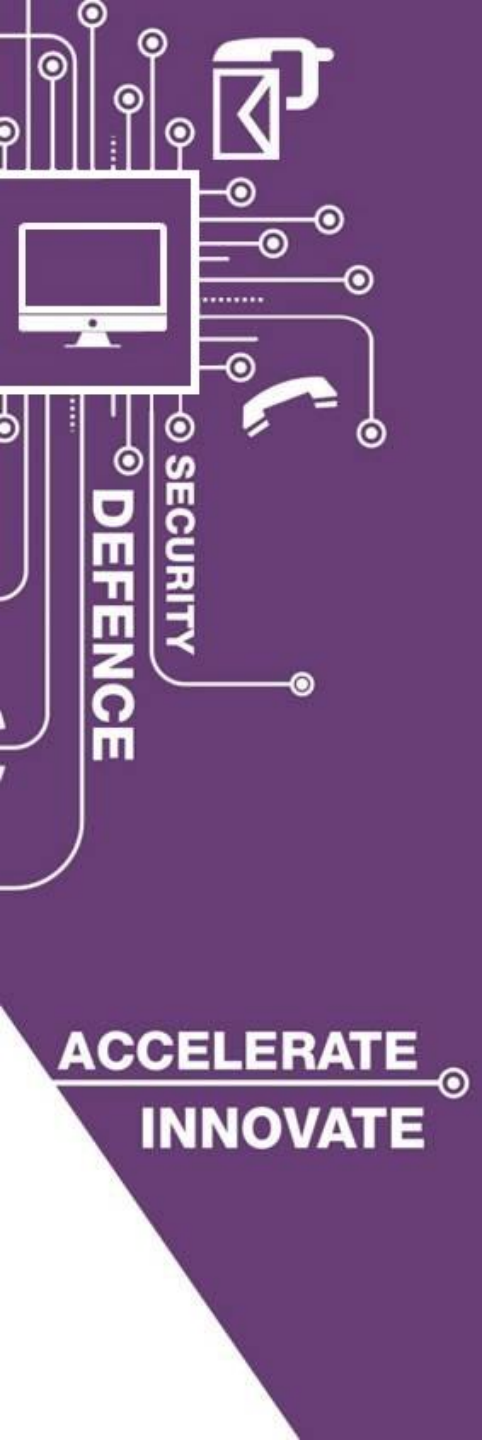
Q&A

How to submit questions throughout today's session

Please submit or upvote any questions via slido



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



Agenda



Defence and Security

Time	Session	Speaker
5 minutes	Attendees sign on to platform	
5 minutes	Welcome and housekeeping	Patrick Ralph, DASA Associate Delivery Manager
10 minutes	Future Collective Training System – Introduction, The Need for Transformation	Brig John Wakelin, Collective Training Transformation Programme.
25 minutes	Overview and highlights of the Competition What is A3E? A3E in Current Training Challenges <ul style="list-style-type: none">- A flexible human terrain.- A credible suite of role players.- Representative threat systems.- Remote and Autonomous Systems.- A credible Information Environment.	Brig Mark Wilson, Commander Collective Training Group Kathryn Walls, Assistant Head (Research), CTTTP
15 minutes	Overview of DASA	Mike Madden Innovation Partner, South West
30 minutes	Pre-submitted Q&A	All speakers
15 minutes	Open forum Q&A on the day**	All speakers
5 minutes	Closing remarks	
	Event Close	



Competition Launch



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Context

- Brig John Wakelin (Prog Dir CTTP) – The need for transformation



A3E

- Kathryn Walls (AH Research CTTP) – What *is* A3E?



Army collective training

- Brig Mark Wilson (Comd CTG) – A3E in current training



Challenges

- Kathryn Walls (AH Research CTTP) – What do we want from you





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FUTURE COLLECTIVE TRAINING SYSTEM (FCTS)

VISION The FCTS will deliver an integrated, expeditionary and digitalised training system, with the flexibility to allow the Army to train globally when and where it needs.

It will prepare Land Force Elements to meet their Defence outputs and allow the Army to train, in challenging, realistic, multi domain and world leading environments – including instrumented urban.

STRATEGIC TRAINING PARTNER

The selection of a Strategic Training Partner (STP) from industry will, in partnership with the Field Army, deliver a package of services that will form the FCTS. This will transform how we currently deliver the Collective Training Enterprise, and how the Collective Training Experience will be transformed for all our Soldiers.



TRANSFORM THE ENTERPRISE

TRANSFORM THE EXPERIENCE

DATA EXPLOITATION

The STP will capture and exploit training data allowing Comds and LWC to manage and develop training.

CONNECTIVITY

A secure bearer network that allows expeditionary & distributed training.

TRAINING SYSTEM

The STP will empower the Field Army to improve their ability to analyse, design, deliver, assure and exploit training. This will be underpinned by data analytics and will allow innovation in training and the integration of emerging technologies.

A3ES

Audiences, Actors, Adversaries, Enemies, & Specialists across the **LIVE VIRTUAL CONSTRUCTIVE** blend representing the Future Operating Environment.

ENHANCED URBAN FACILITIES

Enhancing and optimising urban training facilities across 6 UK locations from Training Level C-F. Fully instrumentalised and multi-layered across the 6 NATO Urban Training Zones, including Subterranean.

SINGLE SYNTHETIC ENVIRONMENT

Modern, massive, immersive, rich & complex environments across **LIVE VIRTUAL CONSTRUCTIVE** training at the point of need.





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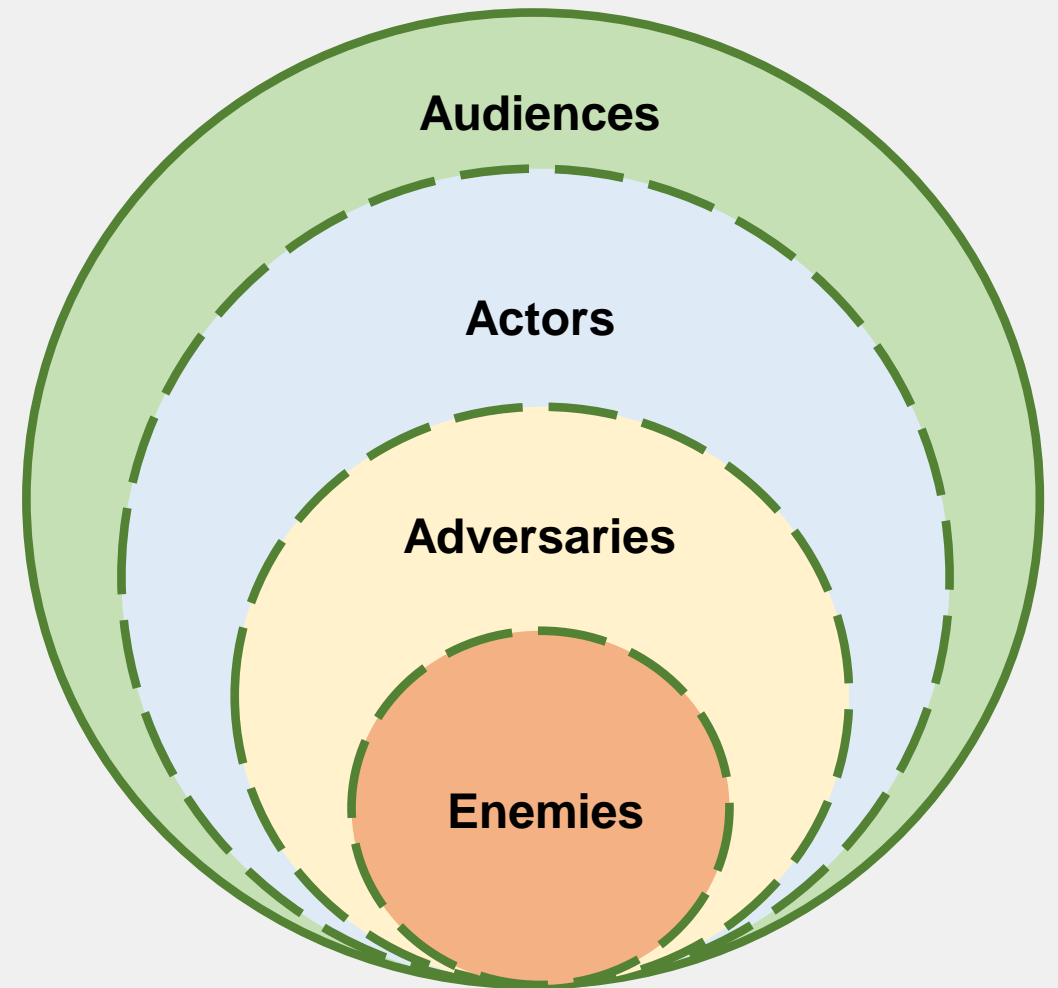
WHAT IS A3E?

Audiences: groups and individuals whose perceptions and interpretation of events and subsequent behaviour contribute to the success or otherwise of military action.

Actors: individuals or groups who take action or directly exert influence. They include British forces and allies, as well as others who are friendly, neutral or hostile.

Adversaries: hostile sub-set of actors; those groups and individuals who seek to prevent friendly forces from achieving their objectives.

Enemies: those who seek to oppose friendly forces through armed, lethal means.







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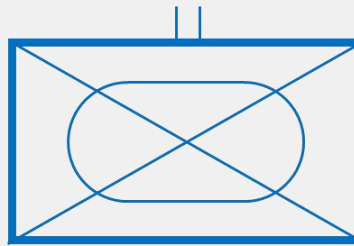


Challenges

- Kathryn Walls (AH Research CTTP) – What do we want from you



WHY DO COLLECTIVE TRAINING



TTPs/Doctrine

DETER

Fight Today
Tonight/Tomorrow

DEMONSTRATE

Optimisation



REASSURE

WARDEV

REHEARSE

CAPDEV

Build/Interoperate

Challenging

Arduous

Adversarial



Realistic

Safe to Fail

Safe

A3E WEBINAR THREAT

Themes

- First Mover
- Sensor Shooter
- Persistent Stare
- Survive to fight
- Fight to win
- C2 Warfare

4+1+1: GBAD, EW, UAS, Fires, Log, C2

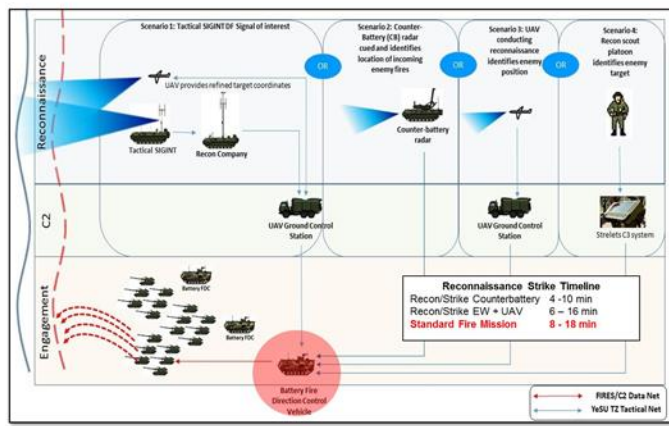
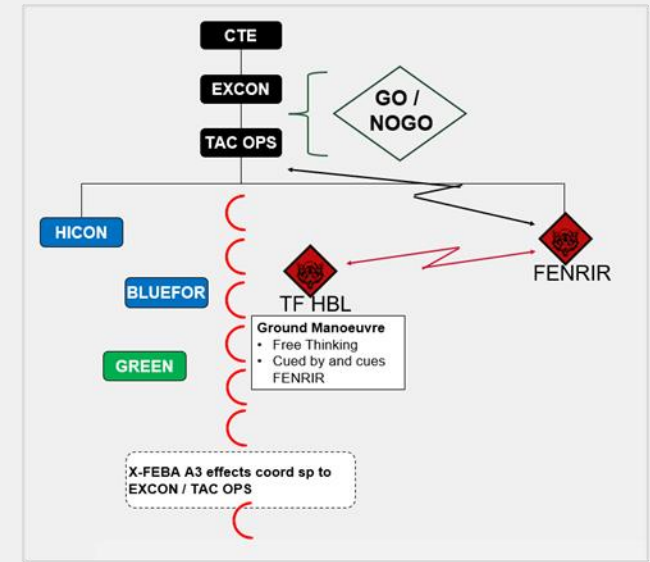
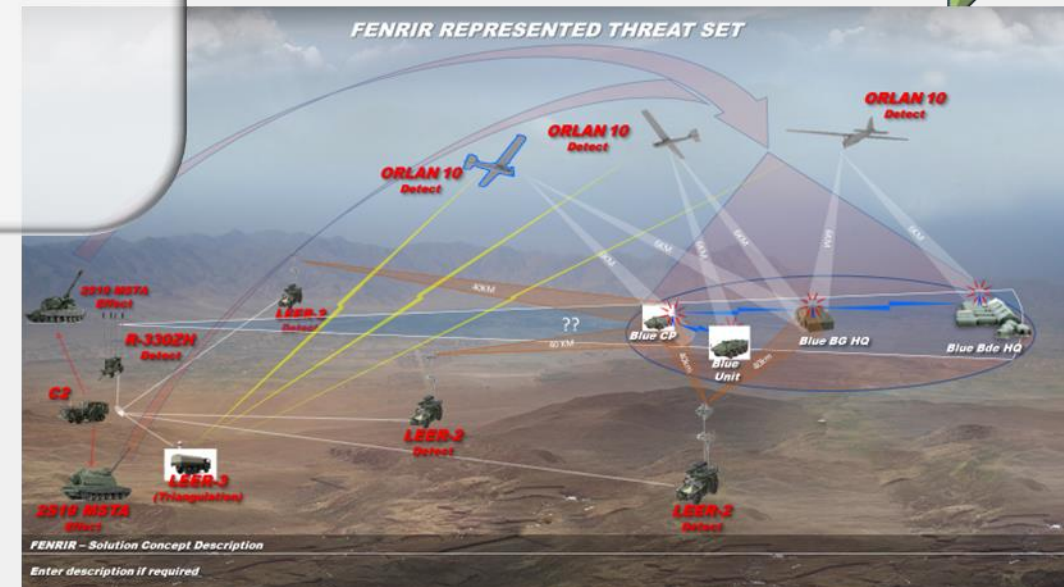
- OPSEC/Surprise
- C2D2/CSCM/STAP/AAAD/EMCON
- Urban and CBRN
- Digging
- Logistics/Sustainment

Hannibal/Fenrir - Coheres and delivers Threat Effects

- Relevant to OE and Scenario
- Realistic – OPFOR cap
- Resonate – with trg audience to effect behavioural change
- Measurable – evidence, development, comparison

Threat Effects Delivery

- CEMA
 - ES / EA
 - IA&O
- RPAS
 - FIND / OBSERVE
 - OS cue
 - STRIKE
- FIRES inc AIR effects
- CBRN
- Decision sp to CTC

COUNTERING THE THREAT: 'THE TOP 12' 2023

Combined Arms Manoeuvre

Degraded/denied EMS

Personal Electronic Device (PED) Red

Mobility & Counter Mobility

Protection

Camouflage and concealment

Dispersion

Deception

Protection against fires

Mobile Operations

Use of terrain and night

Counter Air

Air Sentries

All Arms Air Defence

Artillery Fire & Movement

Firing

Detection

Movement

Armoured Fighting Vehicle Recognition

AFV Recognition

Tempo at Night

Tempo at Night

CBRN (inc TIC)

CBRN
(inc Toxic
Industrial
Chemicals)

FIND, FIX, STRIKE against deception

Physical Deception

Electronic Deception

Armour

Counter Armour

Counter Anti Tank
Guided Weapons

Counter Air Assault/Airborne Operations

Counter Air
Assault/Airborne Ops

Comd Post Processes to process and fuse ISTAR

ISTAR Fusion (CIP/COP)



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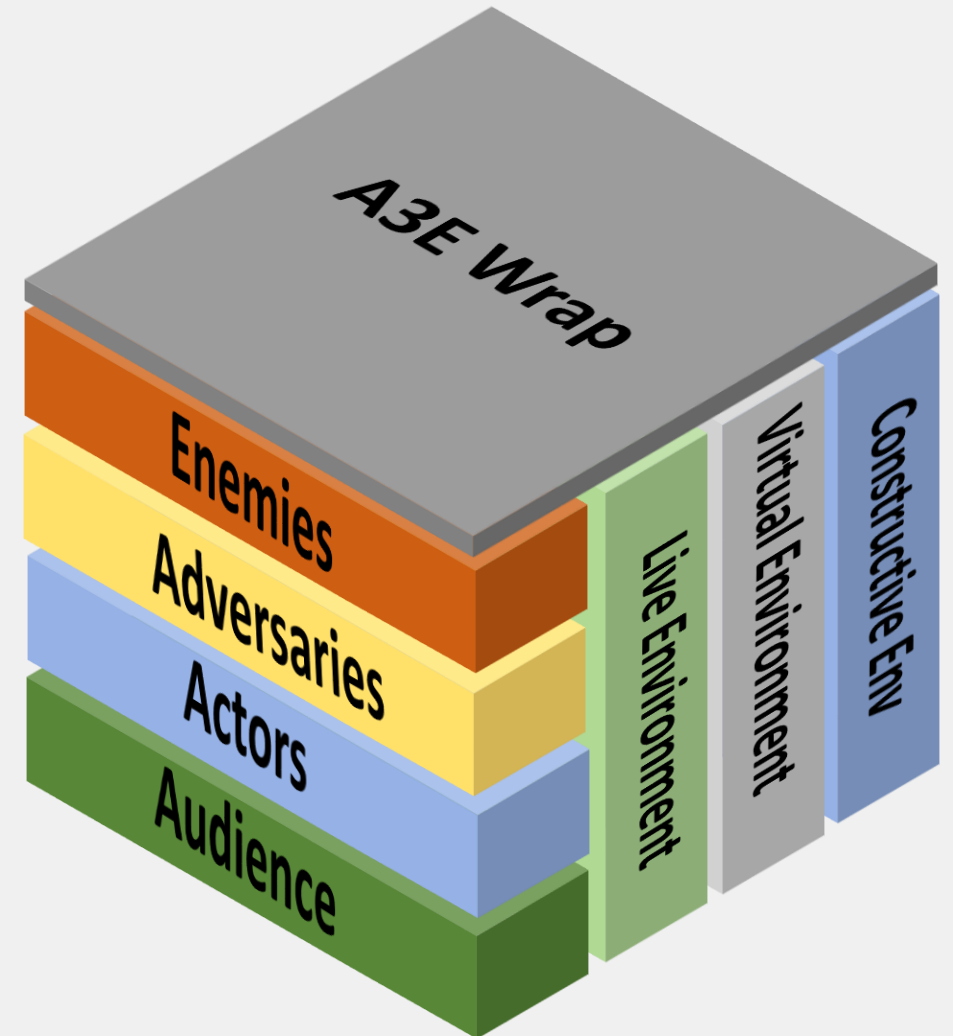
Challenges

- Kathryn Walls (AH Research CTTP) – What do we want from you



THE A3E WRAP

- **Live training:** uses actual resources (personnel and equipment) operating in a real environment.
- **Virtual training:** uses live personnel operating simulated equipment, in a simulated environment, with simulated effects.
- **Constructive training:** uses live personnel directing simulated personnel and formations, using simulated equipment, in a simulated environment with simulated effects.



A3E Wrap

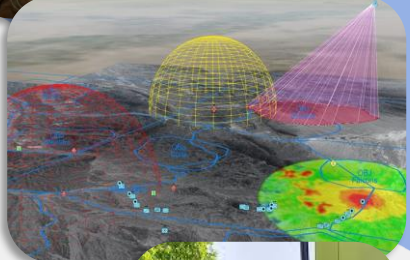
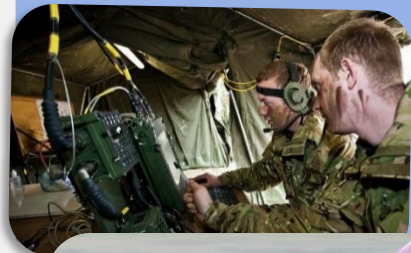
- Enemies
- Adversaries
- Actors
- Audience



Live Environment



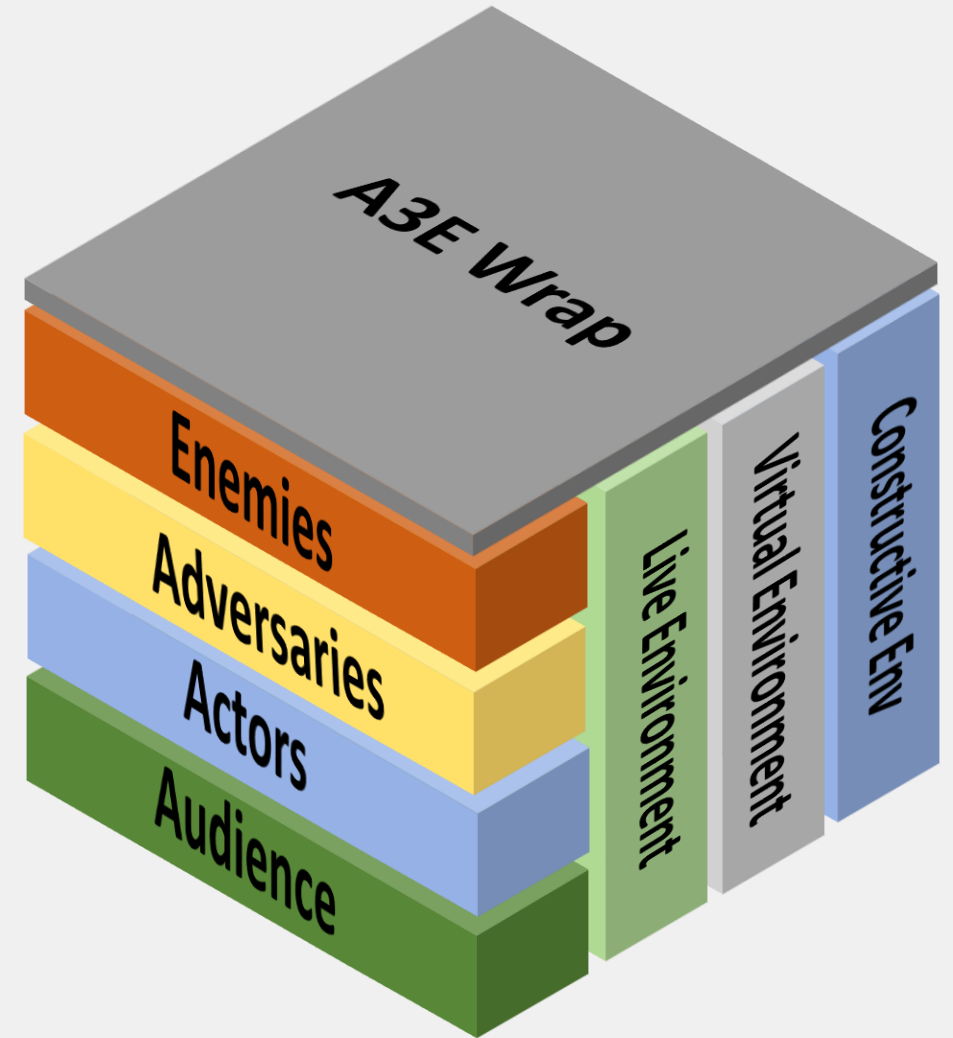
Virtual Environment



Constructive Em

THE A3E WRAP

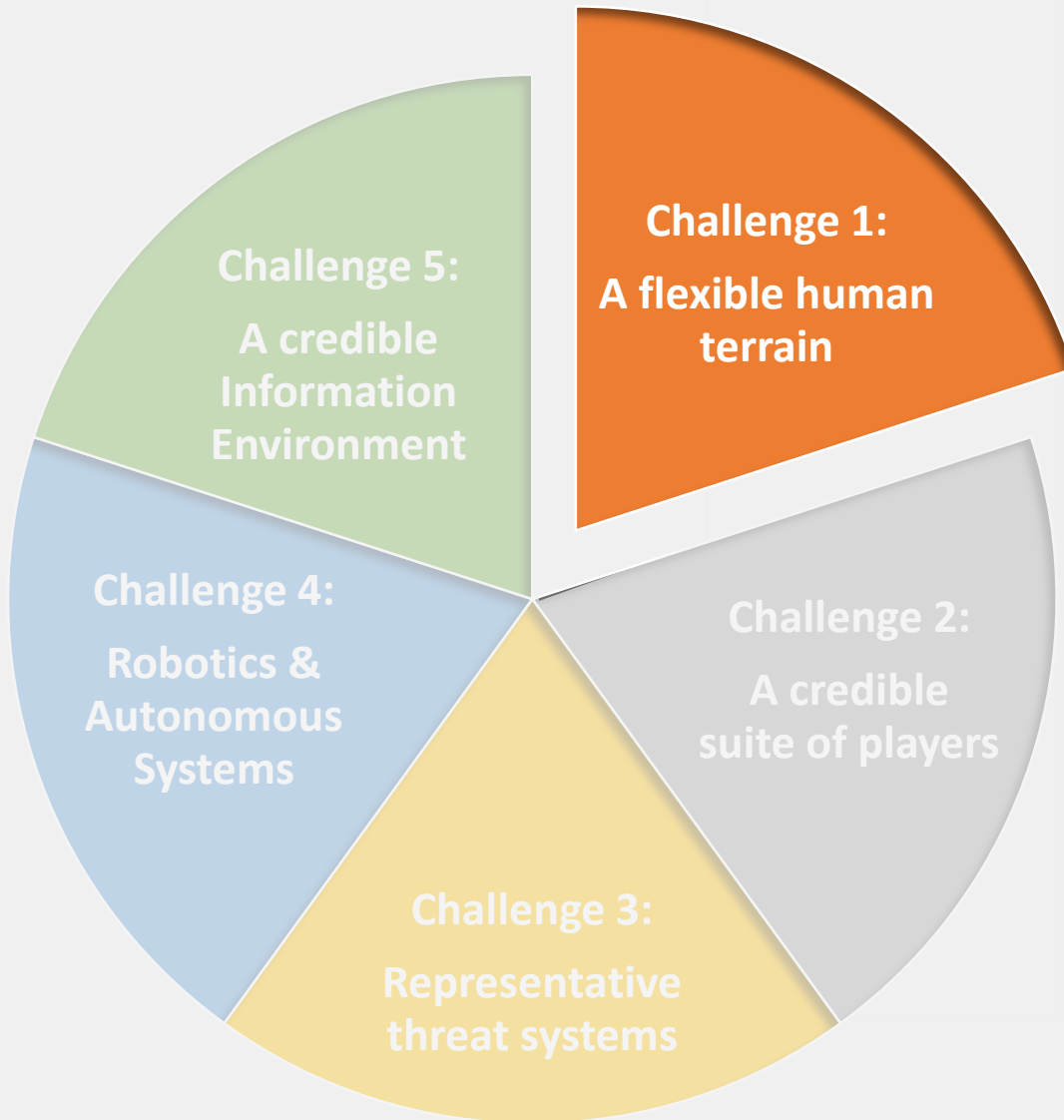
- A3E needs to be interlocking at all levels to provide convincing feedback to the exercising troops
- Actions in all environments (Live, Virtual, and Constructive) must not work in isolation
- The A3E needs to be fully integrated with other training systems, this is not simply “rent a crowd”



CHALLENGES – WHAT DO WE WANT FROM YOU?



CHALLENGES (WHAT DO WE WANT?)



Scalable, consistent and configurable across the Live, Virtual and Constructive training domains from 100s to many thousands of personnel, e.g.:

- Threat representations that are consistent
- Systems that augment physical and virtual capabilities.
- Ways to record A3E to support AAR and other data exploitation.
- Capabilities that integrate with tactical engagement systems.

CHALLENGES (WHAT DO WE WANT?)



An agile human terrain that can test the training audience against a broad range of threats, e.g.:

- Live and Synthetic representation of actors.
- Behavioural models that deliver credible human behaviours.
- Flexible human behavioural models that are:
 - Extensible
 - Composable
 - Reusable
 - Explainable.

CHALLENGES (WHAT DO WE WANT?)



A full representation of threats, from peer+ to actions below the threshold of conflict, e.g.:

- Highly manoeuvrable mechanised forces, supported by wheeled/tracked vehicles and massed fires.
- Massed indirect fire capabilities.
- Armoured/mechanised ground forces supported by Air Assault, Air Defence, Fast Air and Rotary assets.
- Insurgency tactics and weapons.
- Deliberate and improvised Chemical, Biological, Radiological & Nuclear weapons, offensive Cyber & Electromagnetic Activities, satellite denial, information activities.

CHALLENGES (WHAT DO WE WANT?)

A full spectrum of frictions from Robotics & Autonomous Systems (RAS), e.g.:

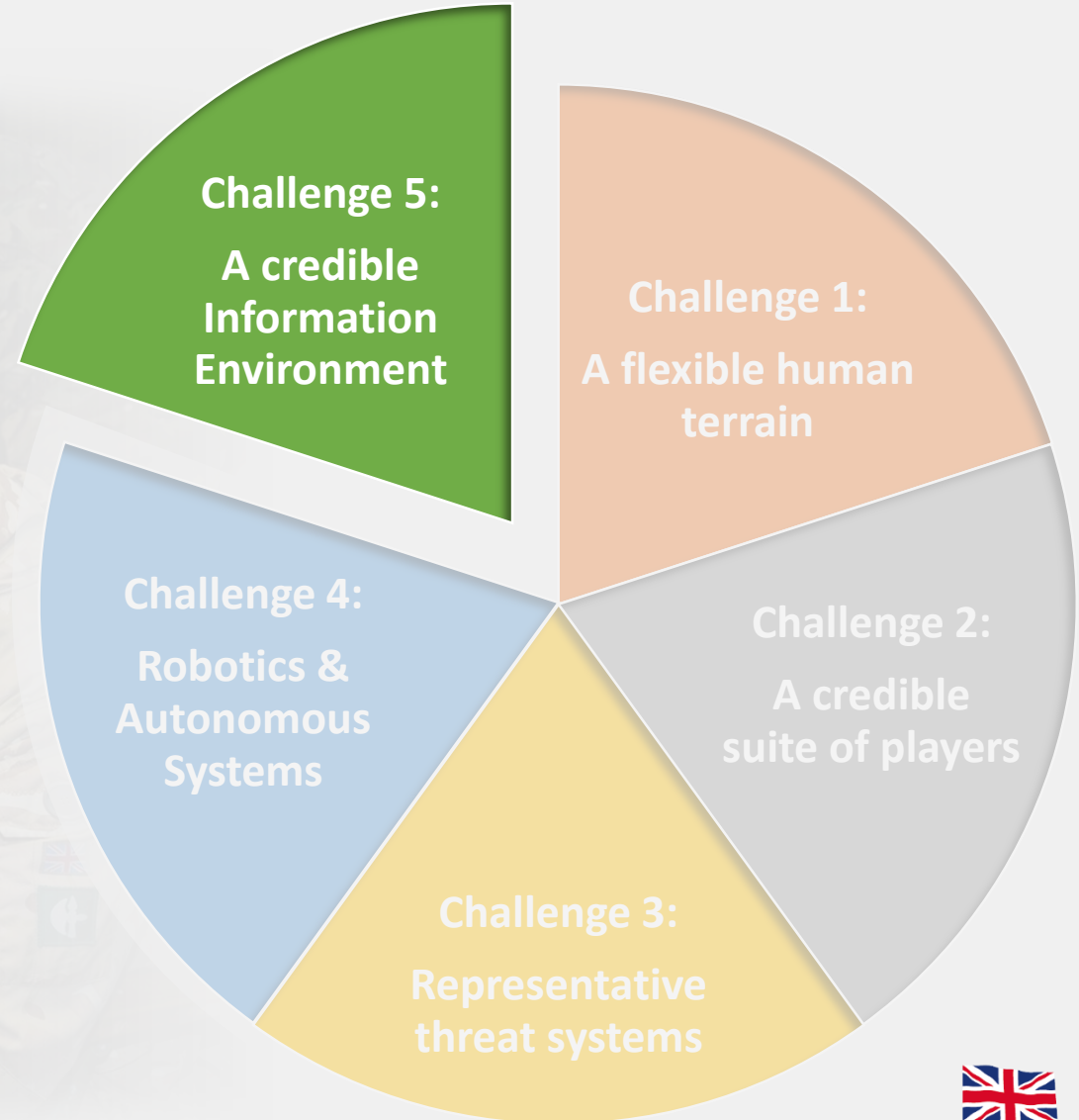
- Near real time and layered Intelligence, Surveillance and Reconnaissance
- Kinetic and weaponised capabilities from ground- and air-based RAS.
- The clutter of non-threatening RAS (e.g. services, media, deliveries).



CHALLENGES (WHAT DO WE WANT?)

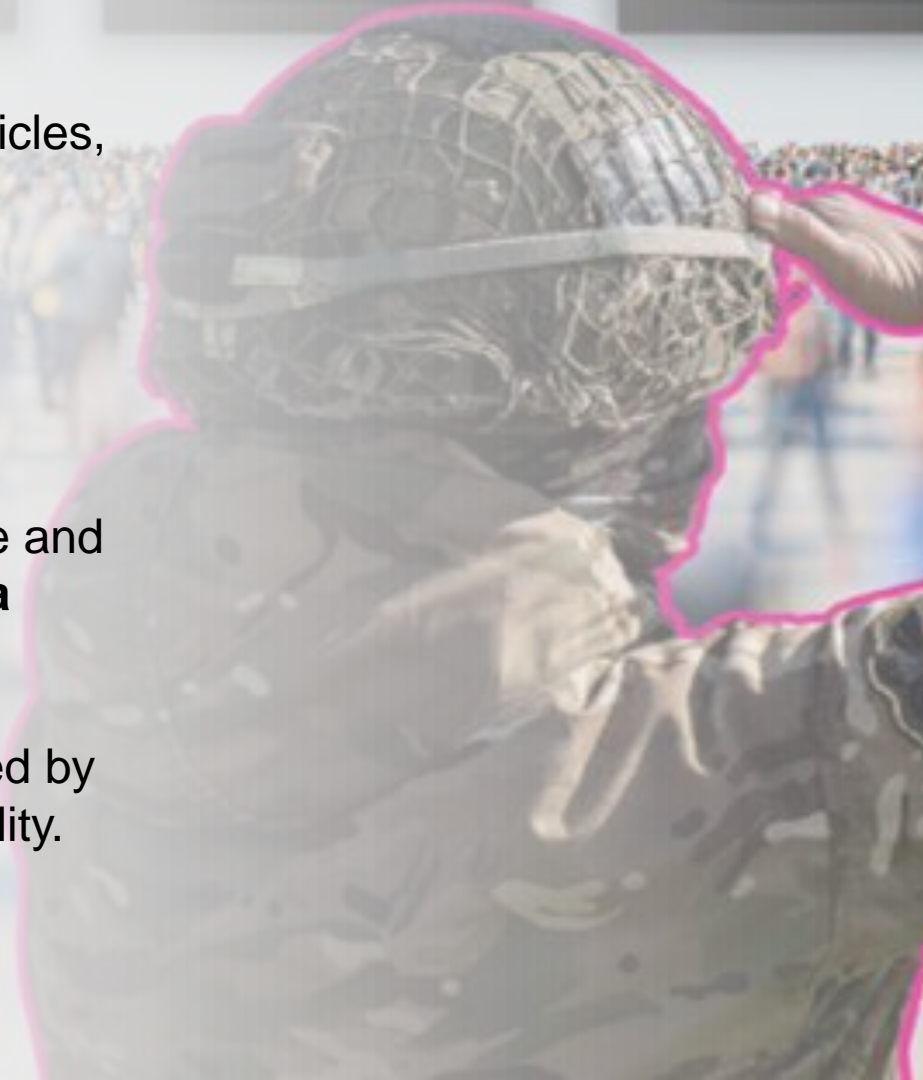
A realistic and contested cyber and electromagnetic environment, e.g.:

- Adversarial Electronic Warfare capabilities, including signal detection, recognition, identification, location and exploitation (e.g. listening, jamming, deception or targeting).
- Hostile Information Manoeuvre activities, including social media and disinformation.
- Credible cyber and electromagnetic clutter, such as local phone networks or blue light radio systems.



SUMMARY

- ✓ Innovations that help **deliver seamless training irrespective of the training environment.**
- ✓ Innovations that **augment live representation** of role players, vehicles, weapons and systems.
- ✓ Innovations such as behavioural models and methods for **rapid reconfiguration** that make **computer-generated forces more credible.**
- ✓ Innovations such as a contested electromagnetic spectrum, remote and autonomous systems, and realistic threat capabilities that **deliver a credible challenge.**
- ✗ Innovations that deliver **only live role players**, unless accompanied by an innovative solution that augments and/or enhances their capability.





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DASA Overview

Populating the World of Training

17th March 2023

Mike Madden

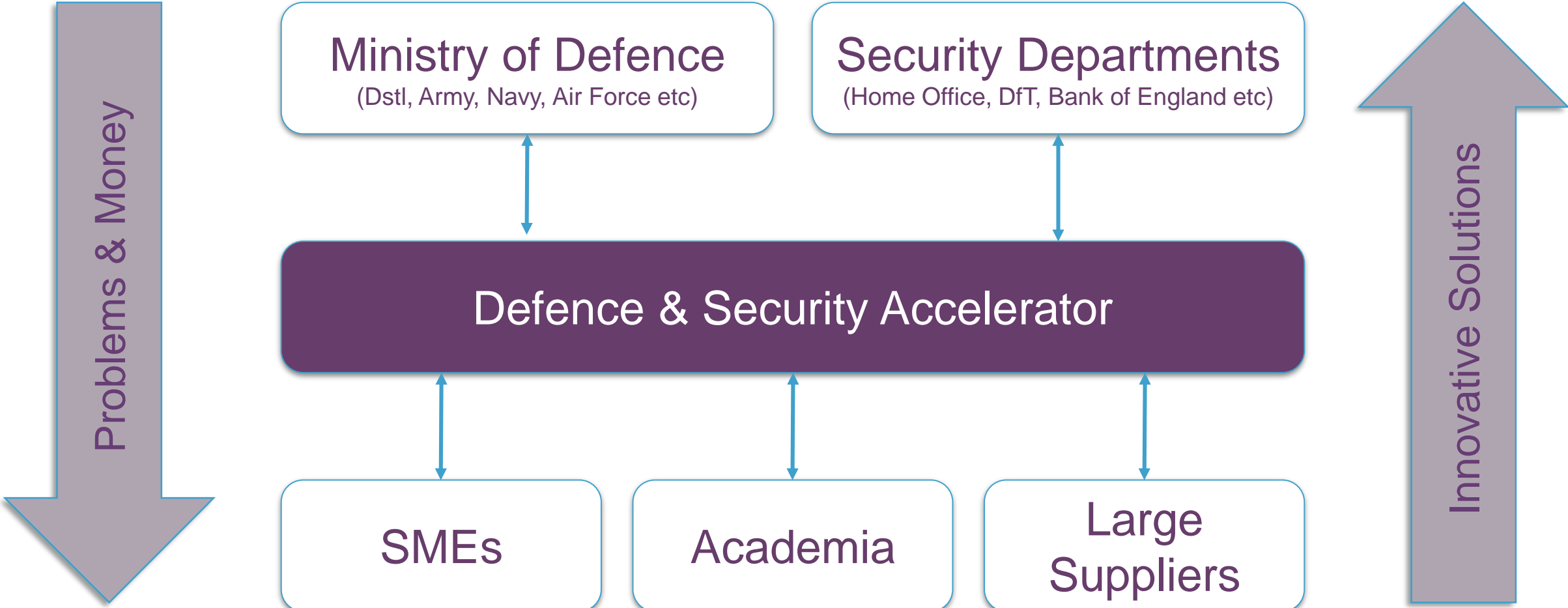
DASA Innovation Partner South West of England



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

How do we achieve this?



Why enter our competitions?

- 100% funding (some exceptions)
- Intellectual Property stays with you
- Relatively quick contracting
- Access to end users and technical advice
- We work to exploit your idea



How do you get involved?

- **Market Investigations**
- **Competitions**
 - Themed Competitions
'Customer pull'
 - Open Call Competitions
'Innovator push'
 - Defence Innovation Loans
- **Other Opportunities and Services**
 - Defence Technology Exploitation Programme.
 - Ideas Market Place.
 - Access to Mentoring & Finance.



Ideas Market Place – Defence Innovation Portal

A front door to MOD innovation, providing links to:

- Key Points of Contact
- DASA Submission Service
- Ideas Marketplace
- Collaboration Finder
- DASA Communications Hub



or: <https://community.dasa.service.mod.uk/ideasmarketplace>


A screenshot of the Defence Innovation portal landing page. The page features the Ministry of Defence logo at the top left. The main heading is "Defence Innovation". Below this, a paragraph states: "DASA works with innovative organisations to deliver the next generation of security tools and services." A list of bullet points follows: "Access over £250 Million in specialist Government funding", "List your ideas on our ideas marketplace (UK registered companies only)", and "Get notifications about updates to available funding opportunities". A green "Start now" button is positioned at the bottom left of the content area. On the right side of the page, there is a photograph of a large, white, cylindrical military missile or rocket mounted on a launch system against a blue sky and sea background.

Defence Technology Exploitation Programme (DTEP)

- £16 million programme to boost defence innovation in **UK registered small and medium-sized enterprise (SME)**.
- **Grants of up to 50%** (max £500k) available.
- Requires SMEs to pursue **collaborative** project with **higher tier UK** suppliers.
- Collaboration opportunities - SW RDSC, trade bodies, Ideas Market Place.
- To support the integration of novel technologies, materials and processes to benefit **Defence** supply chains.
- Must be aligned with **Capability Challenges**.
- Multi-stage application.
- Always open for applications but check dates for assessment cycles.



Defence Technology
Exploitation Programme (DTEP)


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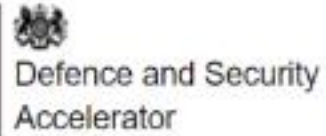
Submission Service Status

- Some areas of DASA's proposal submission service will be unavailable due to service upgrades.
- It is expected that work will be completed by 29 March 2023.
- Until then you will not be able to apply for DASA's Open Call or Themed Competitions using the submission service
- A proposal template has been made available on our competition page so you can prepare your proposal offline and transfer/upload content later.



<https://www.gov.uk/government/news/extension-for-upgrades-to-dasa-proposal-submission-service>

Contacting DASA



Part of [Ministry of Defence](#)

Login/Register for an account

Ideas Marketplace

Apply for Funding

Market Exploration

Defence Technology Exploitation Programme (DTEP)

Innovation Case Studies

Get in touch with DASA

Featured



Contact Us



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www.gov.uk/dasa



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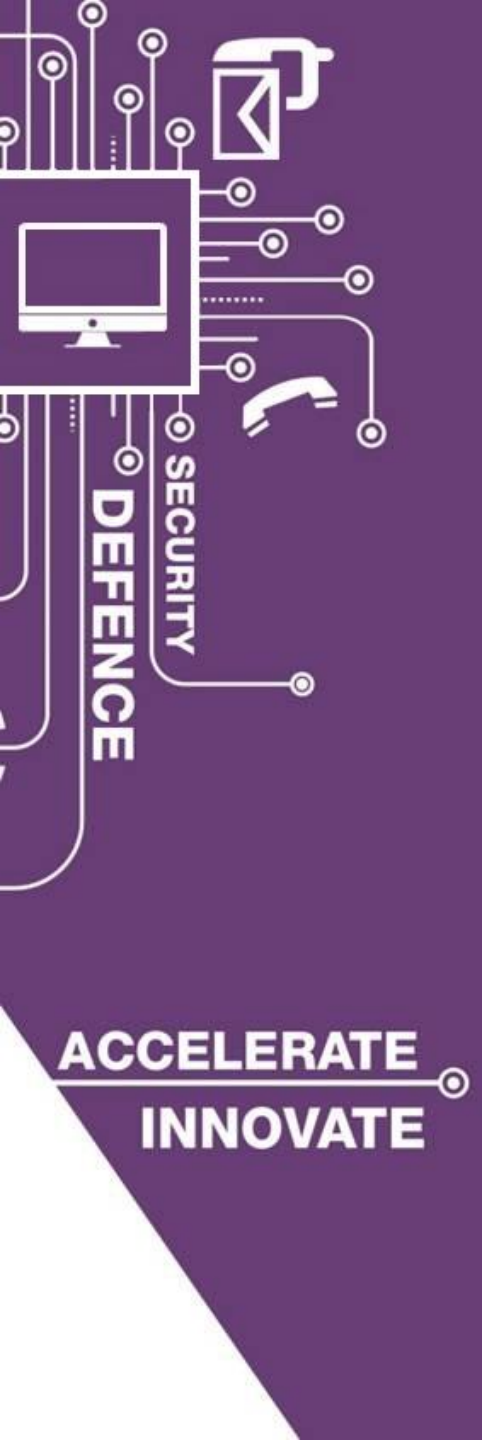
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Closing Remarks



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- We welcome collaborations, our collaboration survey is open until 21 April 2023 - <https://www.smartsurvey.co.uk/s/5KDM0A/>
- 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- <https://www.gov.uk/government/publications/competition-populating-the-world-of-training-phase-1>
- Help is available from DASA Innovation Partners

