[dstl] Delivering Mission Success

Dstl Searchlight

Introducing companies to Defence research

Defence Energy and Capability Resilience Centre of Excellence (DECX)

20th January 2026

Ministry of Defence

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Defence Energy and Capability Resilience Centre of Excellence (DECX)

James Clare
Director of Energy, Environment & Infrastructure

James is a Director within the Ministry of Defence responsible for the policy and strategy linked to Energy, Environment and Infrastructure (EEI).

Working within the MOD's Department of State function, his responsibilities cover shaping and influencing wider Government policy, directing cross Defence energy, environment and infrastructure activity and delivery of statutory and non-statutory commitments.

Additionally, James is also the MOD's Chief Sustainability Officer working to release value back to Defence of more sustainable approaches either through efficiency savings or wider capability co-benefits. He is also responsible for wider MOD energy resilience activity.

Tom Odell
Head of DECX

Tom Odell is Head of the newly established Defence Energy and Capability Resilience Centre of Excellence (DECX), and a Chief Analyst within the UK Ministry of Defence.

Responsible for ensuring MOD research delivers innovative solutions in response to a more diverse and demanding energy landscape, as well as preparing the Ministry of Defence to operate in an increasingly challenging future operating environment.

Working alongside MOD and wider Government stakeholders, Tom leads the DECX team to understand priority issues and translating these into research that can be delivered either within Government or through the UKs industrial or Academic research base. Responsible also for ensuring that the impact of DECX research and advice is realised, helping military users to understand the value of the solutions presented and embedding them across various levels of the MOD. Before this role, Tom held various positions, including leading MOD Spending Review analysis and as an Exchange Analyst to the US Department of Defense.

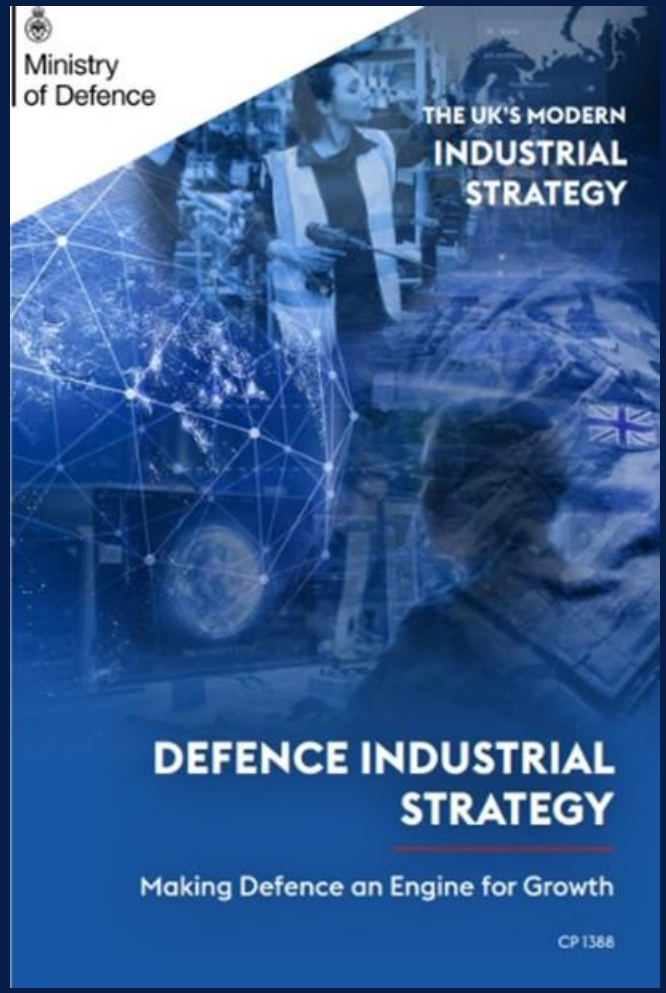
Our Mandate: Defence Industrial Strategy

DECX announced in the Defence Industrial Strategy (DIS)

Associated funding package approved.

Chapter 5:

To accelerate innovation and adoption of dual use technologies, we will establish the Defence Energy and Capability Resilience Centre of Excellence (DECX). This will unite the Ministry of Defence, industry, academia and research to harness opportunities for operational advantage and resilience from emerging energy technologies and circular economy approaches. DECX will build our technological edge and support the development of key sovereign industrial capabilities for the UK whilst supporting our Armed Forces to operate in new ways in changing environments.



DECX Vision

Uniting UK Defence, Industry, Research and Academic expertise to build the UK's technological edge in energy and support solutions. DECX research will harness opportunities for operational advantage and ensure our Armed Forces are resilient in a more hostile operating environment

- £45M investment over 4 years.
- Sovereign capability ensuring the MOD has competitive advantage in a future of greater and more diverse energy needs and changing operating environments.
- Will work with UK experts from world leading multinational organisations to research organisations and academic institutions.
- Deliver robust multi-disciplinary solutions, pushing innovation into the hands of military users.
- The DECX will provide a clear and unified demand signal to industry and academia, stimulating growth and intellectual property development.
- Secure UK leadership in energy and climate security research, generating growth through export potential.
- Defence and wider Government stakeholders will be central to DECX delivery, ensuring solutions are embedded at pace, driving change and benefit where it's most needed.

DECX principles

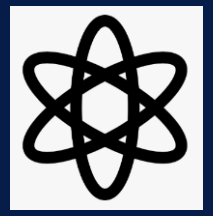
- Transparent by design
- Breadth of stakeholders
- Quick, agile contracting
- Adaptive to activity content, MOD, X-Gov, industry and academia interests
- Delivery partners helping to shape work
- Multidisciplinary/organisation research
- Shareable IP - supporting effective engagement and truly collaborative working between delivery partners
- Deliver resilience through innovation

Dr. Darren Browning
Principal Adviser – Power and Energy

Dr Darren Browning works for Dstl as senior technical lead on Power Sources. He manages and performs research into a range of power systems for all three MOD services. Darren also leads on a range of international collaborations including chairing the NATO Land Capability Group Power Team of Experts.

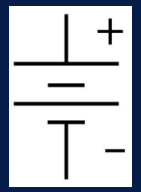
Over the past 30 years he has worked for DRA, QinetiQ and now Dstl on many aspects of energy storage including batteries, fuel cells and energy harvesting for a wide range of military and commercial applications.

Pillars of work: Energy resilience



Energy Supply & Distribution

- Defence is **exploring new energy technologies** such as microgrids and micro modular reactors. Ensuring our forces are powered adequately when and where they need it.
- Defence can effectively navigate the **energy transition** and design the Defence force around new power and energy sources.

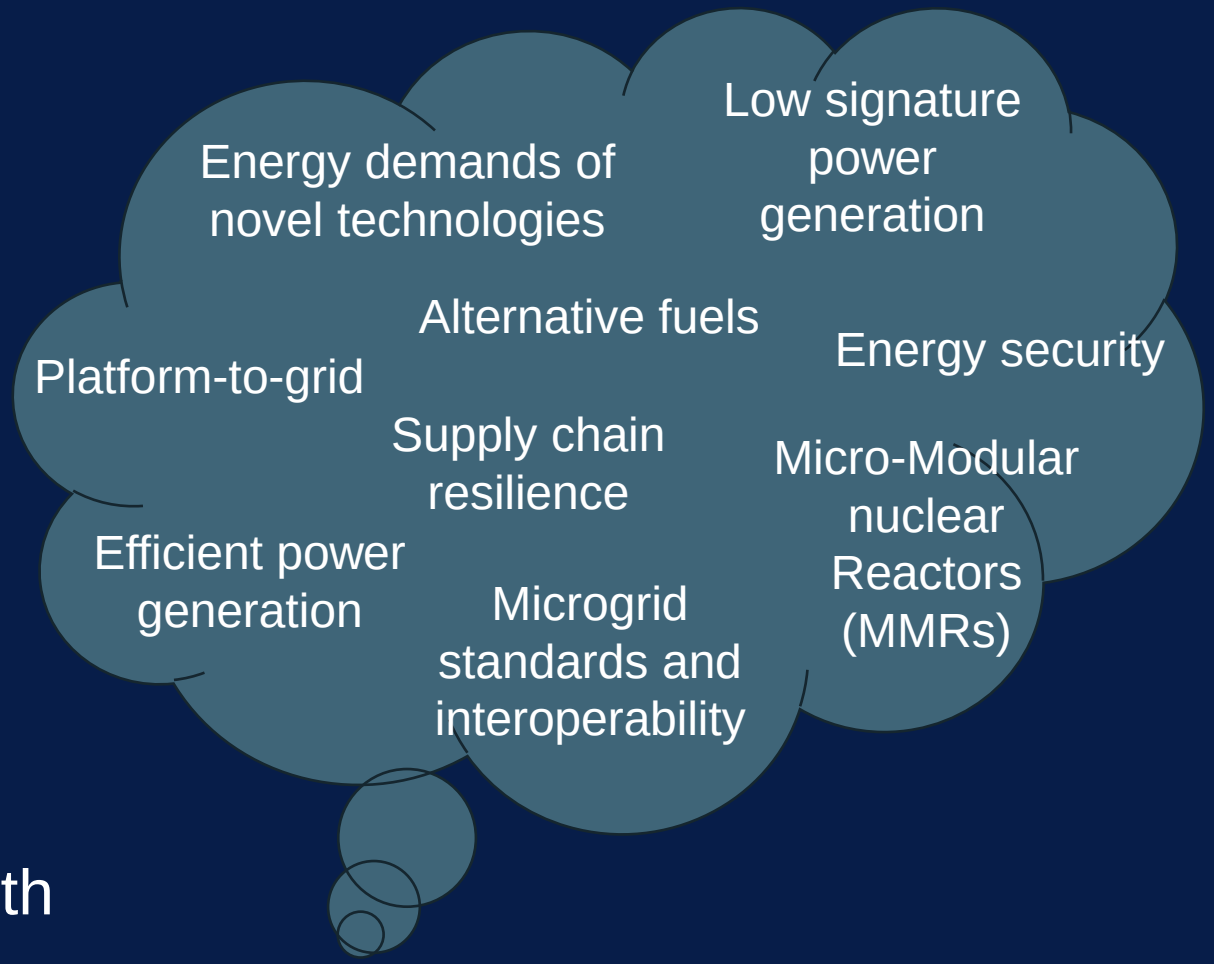


Energy Storage

- Defence to **have sustained access** to cutting edge battery technologies, becoming increasingly interoperable with key allies and are able to power new tech.

Energy Supply & Distribution Challenge Areas*

- What technologies could enhance operational advantage through energy?
- What are the energy demands of novel technologies?
- How can we efficiently generate and distribute greater amounts of energy minimising signatures?
- How could we improve interoperability with our allies?

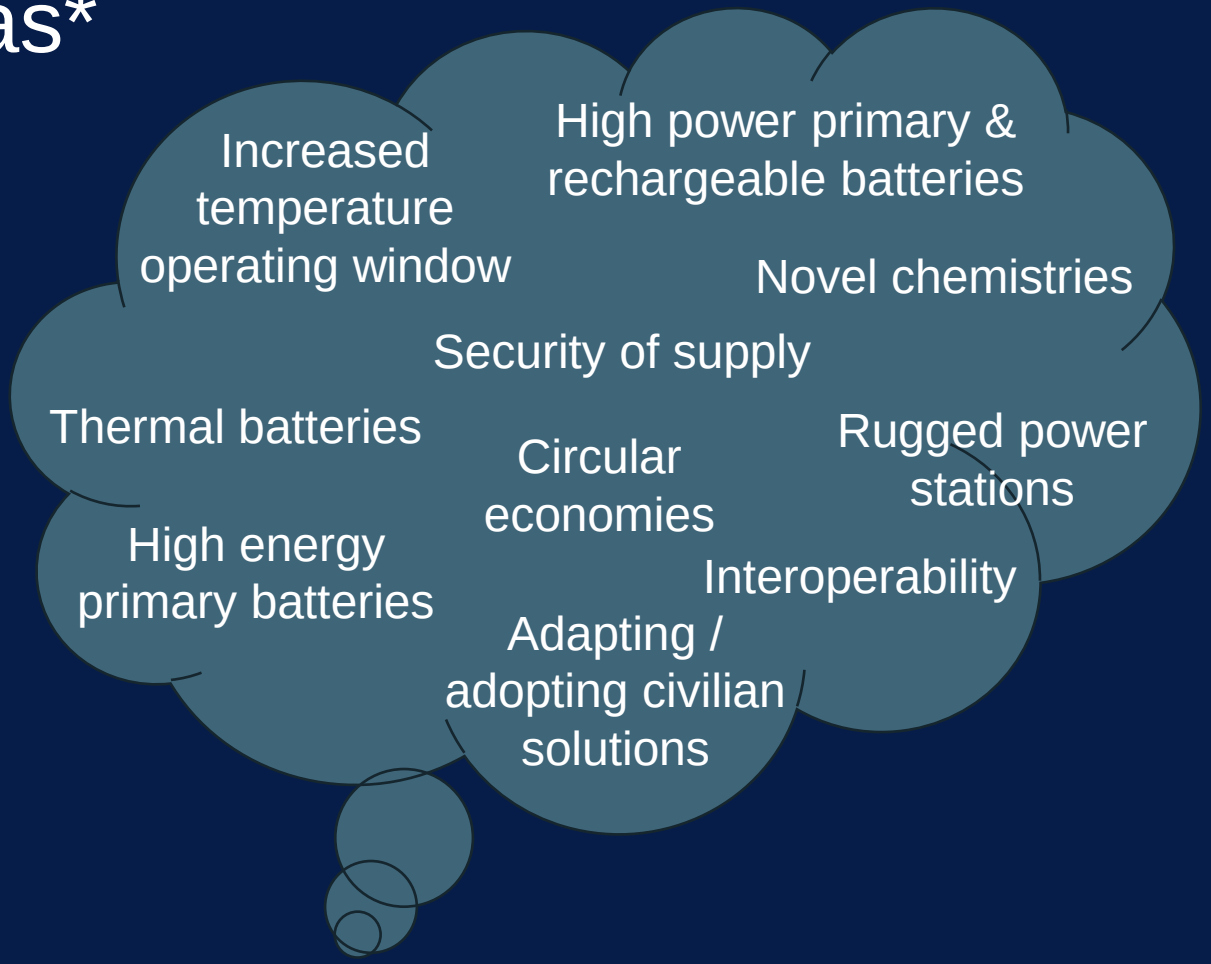


*Challenge Areas subject to change

Word Cloud illustrative of the types of topics of interest

Energy Storage Challenge Areas*

- What commercial batteries can Defence adapt / adopt?
- What novel solutions can be developed for defence specific requirements?
- How do we ensure a resilient supply of defence batteries?
- How and what can we standardise to unify and simplify demand?



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Word Cloud illustrative of the types of topics of interest

Dr. Katie Woodward
Dstl Fellow

Dr. Katie Woodward is a Chartered Psychologist and Fellow at the UK Ministry of Defence's Defence Science and Technology Laboratory (Dstl). She recently led NATO's climate security research portfolio as Head of Research at the NATO Climate Change and Security Centre of Excellence in Montreal. Recognised for bridging science and strategy, Katie's work informs threat-based analysis in the military domain; developing scenarios, assessing capability risks, and shaping frameworks to prioritise Allied adaptation.

Pillars of work: Capability resilience

Resilience in the Future Operating Environment

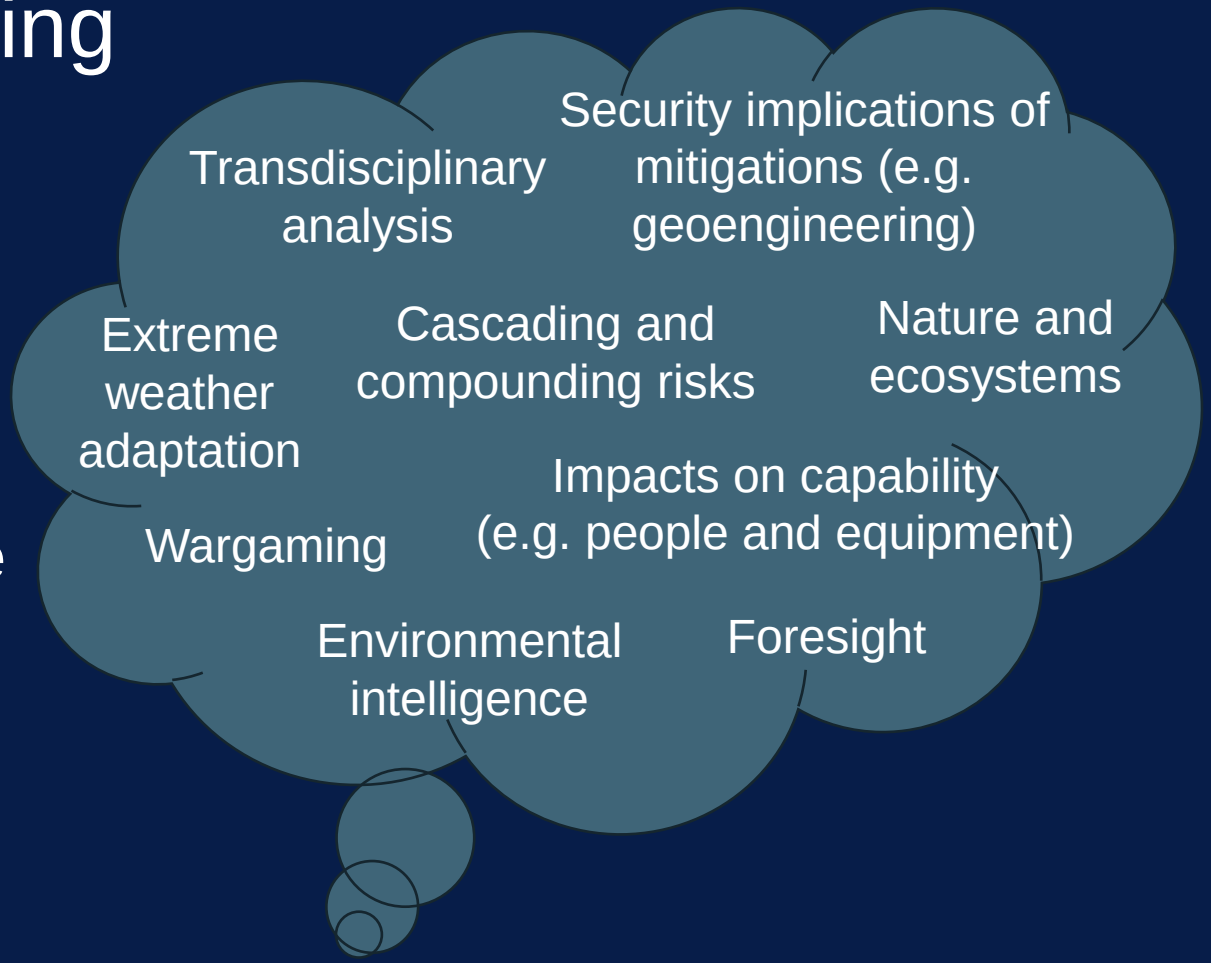
- Defence capabilities are effective in an increasingly challenging operating environment, from personnel being exposed to new pathogens through to altered sonar performance.
- Defence understands how environmental changes will affect the nature of conflict over the coming years, e.g. opening of the Arctic.

Self Sufficiency Innovation

- Defence can exploit “clean tech”. Reducing cost, increasing lethality, and reduced exposure to critical vulnerabilities (I.e. logistics lines).

Resilience in the Future Operating Environment Challenge Areas*

- How will the future environment impact operational capabilities, and operational advantage?
- What capability adaptation does defence need to adopt?
- What indicators and warnings can defence & security make use of to predict instability?
- How does defence respond?



Word Cloud illustrative of the types of topics of interest

*Challenge Areas subject to change

Self Sufficiency Innovation Challenge Areas*

- How can defence improve resilience through use of self-sufficient technologies and practices?
- What dual-use solutions can defence adopt / adapt?
- How could defence increase sustainability?

*Challenge Areas subject to change

Word Cloud illustrative of the types of topics of interest

What next for DECX?

STEP 1: Agree Year 1 programme of work and governance terms of reference.

STEP 2: Commence initial programme of work from FY26/7.

STEP 3: Commercial contracting: placed from FY27/8

What can you do next?

Complete our survey; the link will be included in post-event communications.

Further engagement sessions, beginning with 1-2-1 sessions w/c 9th Feb 26, will provide an opportunity to discuss the programme of work, governance & contracting.

Booking a 1-2-1 can be made by emailing the team @ DECX@dstl.gov.uk.

Questions from **SLIDO**

DECX TEAM

Contact details:

Email: DECX@dstl.gov.uk

Address: DSTL, Porton Down, Porton Road, Salisbury, SP4 0JQ.

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Jo Andrews MCIPS
Dstl Supplier Engagement & Relationship Manager
SRM@dstl.gov.uk

Searchlight SME Showcase
1000 to 1500
30th September 2026
Porton Science Park

https://www.technologyexhibitions.co.uk/porton/

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Introducing companies to Defence research

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