Using Science & Technology to drive efficiency into defence

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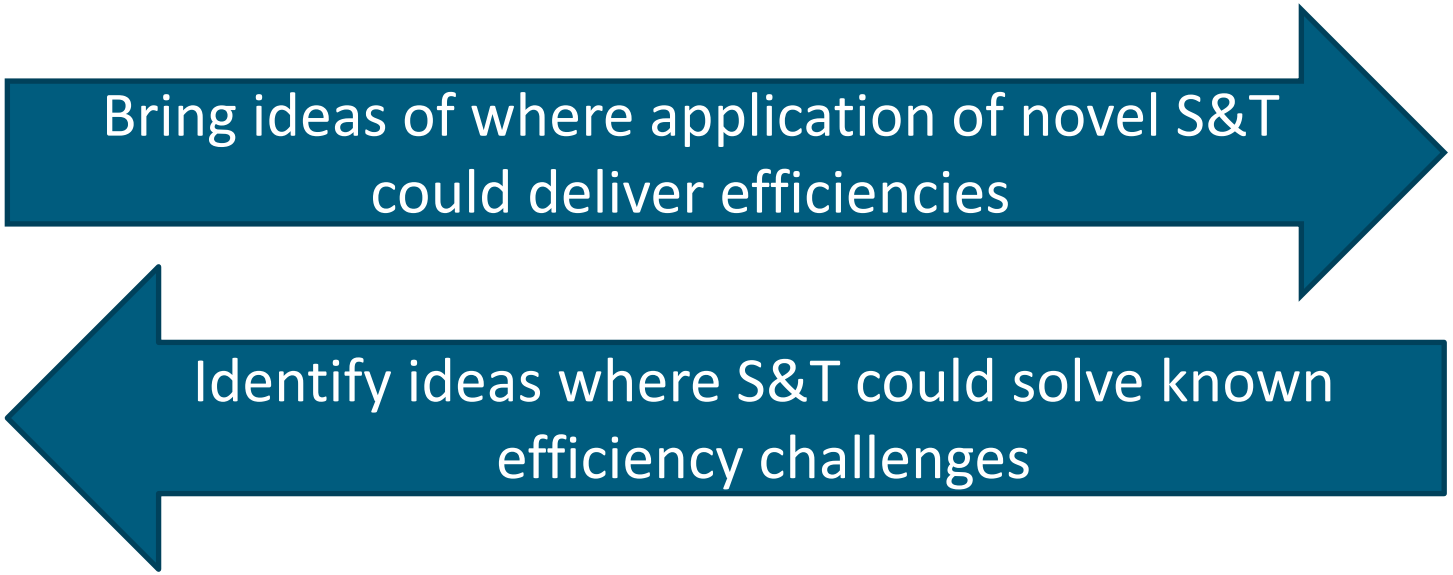
How can we use S&T to drive efficiency?



…and get those ideas exploited!

How to prioritise?

Pre-requisites:

- Could save MOD money through efficiency
- Uses S&T (including analysis)
- Wouldn't otherwise be done

For prioritisation:

- Size of potential saving
- Level of additional benefits
- Likelihood of success
- Likelihood of exploitation
- Is it pan-defence by nature?

Efficiency tracking tool for Army

- Delivered upgraded tool for tracking Army Headquarters efficiency programmes

- So what…?
  - Improved management of efficiency initiatives
  - Reduction in workload
  - Low effort, immediate impact

Consumables tracking tool for Navy

- Delivered suite of tools to capture consumable usage of RN vessels, alongside advice on successful behavioural change

- So what…?
  - Better control of stock ordering
  - More efficient behaviours
  - Low effort, immediate impact

Maintenance and Availability Data

- Identified new options for the Navy to improve data management for the maintenance of its fleet

- So what…?
  - Prevention is better value for money than repair
  - Potential to reduce logistics burden
  - Making better use of resources (including data)

Mine disposal

- Novel mine disposal technology under development
- Analysis running in parallel to understand feasibility and plan exploitation

- So what…?
  - Cheaper to manufacture
  - Cheaper through life costs
  - Analysis maximising likelihood of savings being realised

Medical Logistics for JFC

- Primary Equipment Pack: analysis being conducted to inform medical module requirements
- Medical Stock Inventory Management: analysis underway to improve ability to track and manage stock

- So what…?
  - Ensure provision matches requirement
  - Identify and eliminate areas of waste
  - Reduce medical logistics burden

Working with partners

- External suppliers: setting up tasks with a number of external partners to look at S&T efficiency ideas in several areas:
  - Logistics
  - Infrastructure
  - People
- Academia: sponsored student projects to consider what data science techniques can offer in this space
  - Strathclyde
  - Loughborough
- Leading a NATO Expert Group:
  - Understanding the cost related implications of autonomy – a system of systems perspective

Lessons emerging

- Wide ranging efficiency topics covered, but some persistent themes:
  - Behaviours
  - Short-termism
    - Top level / individual roles
    - Fiscal and delivery perspectives
- Aspiration to do meta-analysis to draw out themes and identify potential cross-cutting interventions to unlock wider efficiencies

Challenges

- Coherence with other areas
  - Research programme
  - Wider defence
- Data availability
- Influence over exploitation
- Tracking savings / value

Future plans

- Alternative methods for idea generation
- Consider broader themes
  - Less focus on equipment…?
- Increase working with external partners
  - Wider range of themes
- Embed efficiency culture into research programme
  - Make this type of activity business as usual!

Questions