

Analysis Led Wargaming



BAE SYSTEMS

We are Techmodal

A collaborative data consultancy, bringing the capability and creativity you need to unlock the strategic potential in your data.

As Defence and Government experts, we understand the unique complexity of your constraints. Adaptive, imaginative and iterative, we meet you where you are – and start with what you have.

We focus on making more of your existing tools and technology. Applying smart thinking and continuous improvement to uncover the insight in your data – and help you move past your stickiest problems. Optimising your investments, operations and outcomes. Maximising the impact of your resources towards a better future.

Our clients operate in high-stakes, highly technical and highly secure environments. The pace is fast; the demands are complex and the cost of getting decisions wrong is high. They need partners who bring clarity, precision and practical expertise – not complexity for its own sake.

Our value comes from combining deep analytical strength, applied technology expertise and hands-on consulting experience. We turn ambiguity into clarity and insight into action.

What we offer

We operate at the cutting edge of digital innovation and at the heart of organisations that keep vital infrastructure running, national security protected, and armed forces prepared. Our teams provide:

Decision advantage

We give organisations the insight to act with clarity and pace, ensuring choices made today hold up under tomorrow's pressure.

Our strength comes from being data-led, operationally aware and grounded in real-world context. We explore options, test scenarios and highlight trade-offs before action is taken, building confidence in complex and high-consequence environments.

Technology that works

We help organisations unlock the full value of their technology and existing investments. Our solutions are shaped to our clients' environments – secure, scalable and designed for reuse – delivering faster outcomes and greater value for money.

We stay user-driven, not technology-driven, ensuring what we build is usable, dependable and impactful.

Delivery impact

We work shoulder-to-shoulder with clients to turn ambition into results. Our approach is collaborative, adaptive and focused on rapid progress.

We build momentum early, provide clear answers before the conversation moves on and ensure delivery stays aligned to purpose. Whether defining strategy or supporting implementation, we bring clarity, structure and practical leadership.

Strength in secure and complex environments

All our work is delivered by security-cleared teams who understand the realities of Defence, national security and critical infrastructure.

We design and assure solutions that are resilient, secure and governed — engineered to work in environments where constraints are real and reliability matters.

Powered by BAE Systems Digital Intelligence

We combine the pace, creativity and agility of a specialist consultancy with the depth, reach and security of BAE Systems.

Clients benefit from a unique blend of niche expertise and enterprise-scale capability, with seamless access to Digital Intelligence, engineering, cyber and equipment programmes when required.

Service Overview

Analytical wargaming is recognised as a valuable tool for commanders, leaders and managers, both within and outside the Ministry of Defence. It serves as a decision-support method that helps inform critical choices. A wargame is a process of adversarial challenge and creativity, delivered in a structured format and usually umpired or adjudicated. Wargames are dynamic events driven by player decision making, providing structured yet intellectually flexible, safe-to-fail environments which allow decision-makers to explore what works (winning/succeeding) and what does not (losing/failing), typically at relatively low cost. As well as hostile actors, they should include all 'oppositional' factors that resist a plan.

All of these aspects provide a powerful tool to provide decision-makers with information to understand strategic and tactical challenges, assess a complex process or system and to help decision-makers to work together to make impactful decisions that achieve their objectives in a complex environment.

Our approach leverages the Analysis-Led Wargaming Framework (ALWF), which has been developed by Techmodal for use in MOD's DEWH and which is set to become the new UK Defence standard; it integrates academic social science research with the wargaming life cycle. The framework is designed to identify the right methodological approach to address

each unique customer challenge or 'research question', as well as supporting the creation of analytically rigorous and exploitable outputs for all exercising and wargaming activities.

The ALWF, shown below, illustrates the five phases in its life cycle: together with three concurrent cycles:

1. Delivery of outputs in each phase
2. Ensuring that activity is analysis-led
3. Providing real-time assurance

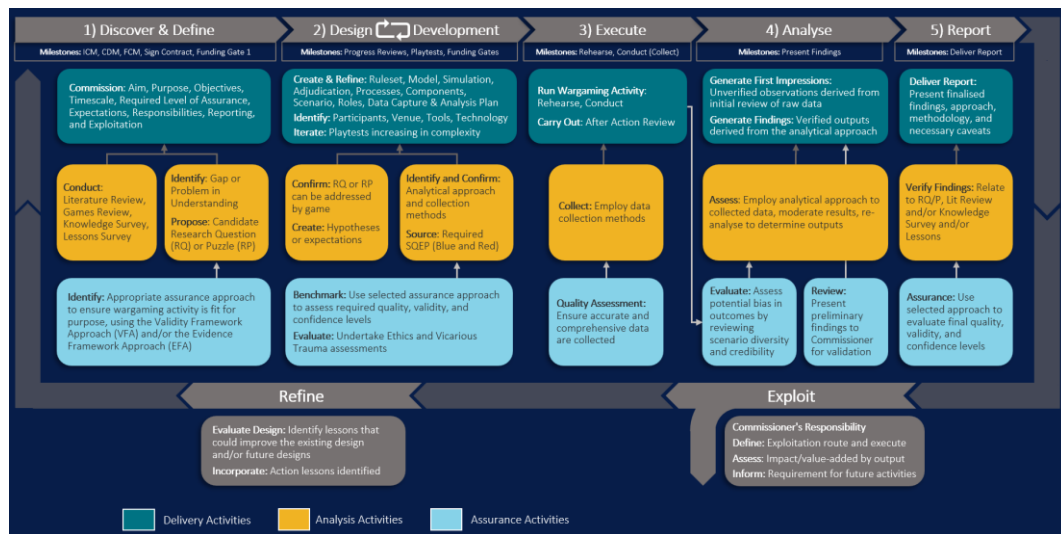


Figure 1 - The Analysis-led Wargaming Framework

Stage 1 - Discover and Define: This stage, which may be iterative, focuses on understanding the Commissioning organisation's intent and clearly defining the activity's purpose. The objective is to establish a well-scoped requirement grounded in both stakeholder needs and relevant context. We undertake this by leveraging our tried and tested commissioning protocol which has been designed to:

- Identify all stakeholders, including the commissioner.
- Define roles and role-relationships and where authorities lie within the delivery team and across all stakeholders (with a workshop if necessary).
- Define responsibilities (exercise provider and exercise commissioner and participants)
- Educate the commissioner (and key stakeholders) in the exercise methodology.
- Define the exercise's function (test a plan, frame a problem, explore a concept etc.).
- Identify how the exercise will be used and how outputs will be exploited.
- Determine what areas are in and out of scope, bound 'the problem'.
- Determine the required level of analysis to generate valid insights.
- Determine the appropriate level of assurance and confidence in outputs.

- Identify the most appropriate method to address the problem/challenge.

Stage 2 - Design and Development: Produces two key outputs:

- A fit for purpose activity method/model – which range from immersive Focussed Discussions and Table Top Exercises to complex large-scale wargames.
- A supporting Data Capture and Analysis Plan (DCAP) to ensure it produces the right outputs to address the question.

Stage 3 - Execute: Delivering the activity to participants, including the logistical setup, facilitation, and any necessary rehearsals.

Stage 4 - Analyse: Captured data is analysed using the methods outlined in the DCAP. The analysis assesses findings for potential bias and determines whether they meet the agreed thresholds for analytical rigour and confidence.

Stage 5: Report: The final stage involves producing a formal written report of the findings. This report includes appropriate caveats based on the outcomes of the assurance process, which also provides an assessment of the quality, validity, and confidence in the outputs.

Service Features

Our Analysis-Led Wargaming service includes the following features:

- Coherence with the Defence Experimentation and Wargaming Hub approach and process, through the Analysis-Led Wargaming Framework
- Identification and quantification of risks to a process
- End-to-end process investigation using an analysis-centric approach
- Assurance delivered throughout
- A tailored data capture plan that ensures the right outputs are captured
- Live sensitivity analysis to deepen discussion
- Red team focussed wargame methodology
- Flash and follow-on reports as required

Service Benefits

The benefits of our Analysis-Led Wargaming service are:

- **Risk in Context:** Forces trade-offs between mission, cost, and risk, revealing true tolerances and blind spots
- **Active Opposition:** Adversary-in-the-loop contests your choices, stress-testing strategies against real thinking, not theory
- **Safe-to-Fail Testing:** Trial bold or unconventional options without operational, social, or political cost
- **Exposes Hidden Assumptions:** Interactions with an opponent allow “unknown knowns” emerge – assumptions, dependencies, and vulnerabilities that were previously invisible
- **Increased Awareness:** Identification of assumptions, blockers, issues, and potential adversary responses for attendees of the games
- **Convening Power:** Improved teamwork and decision processing ability for players
- **Ripple Effects:** Unscripted play exposes 2nd/3rd-order impacts across domains and time, surfacing hidden risks
- **Analytical Outputs:** Data captured is analysed using a range of appropriate qualitative and/or quantitative methods to draw valid conclusions.

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Contact: John Atkins
tenders@techmodal.com