

Wargaming in the military: common faults and recurring errors

Connections (UK)

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Presentation Purpose

To highlight recurring errors in the design and delivery of simulation-based training and analytical events

Agenda

- Definitions
- Distinctions
- Design
- Delivery

Agenda

- (The lack of agreed) Definitions
- (Loose) Distinctions
- (Poor) Design
- (Bad) Delivery
- The 'military credibility test'

Definitions

Scenario:

*'The **background story** that describes the historical, political, military, economic, cultural, humanitarian and legal events and circumstances that have led to the **specific current exercise crisis or conflict...**'*

NATO Bi-SC Exercise Directive 75-3

(direction on how to plan, execute and assess a NATO exercise)

Definitions

Wargame:

‘A warfare model or simulation, using rules, data, and procedures, not involving actual military forces, and in which the flow of events is affected by, and in turn affects, decisions made during the course of those events by players representing the opposite sides.’

Peter Perla. *The Art of Wargaming*, Naval Institute Press, 1990.

1. Aim and objectives
2. Setting and scenario
3. Data bases
4. Simulation(s)
5. Rules, procedures and adjudication
6. Players (and the decisions they make)
7. Supporting personnel and SMEs
8. Analysis

The wargame is **not** the simulation

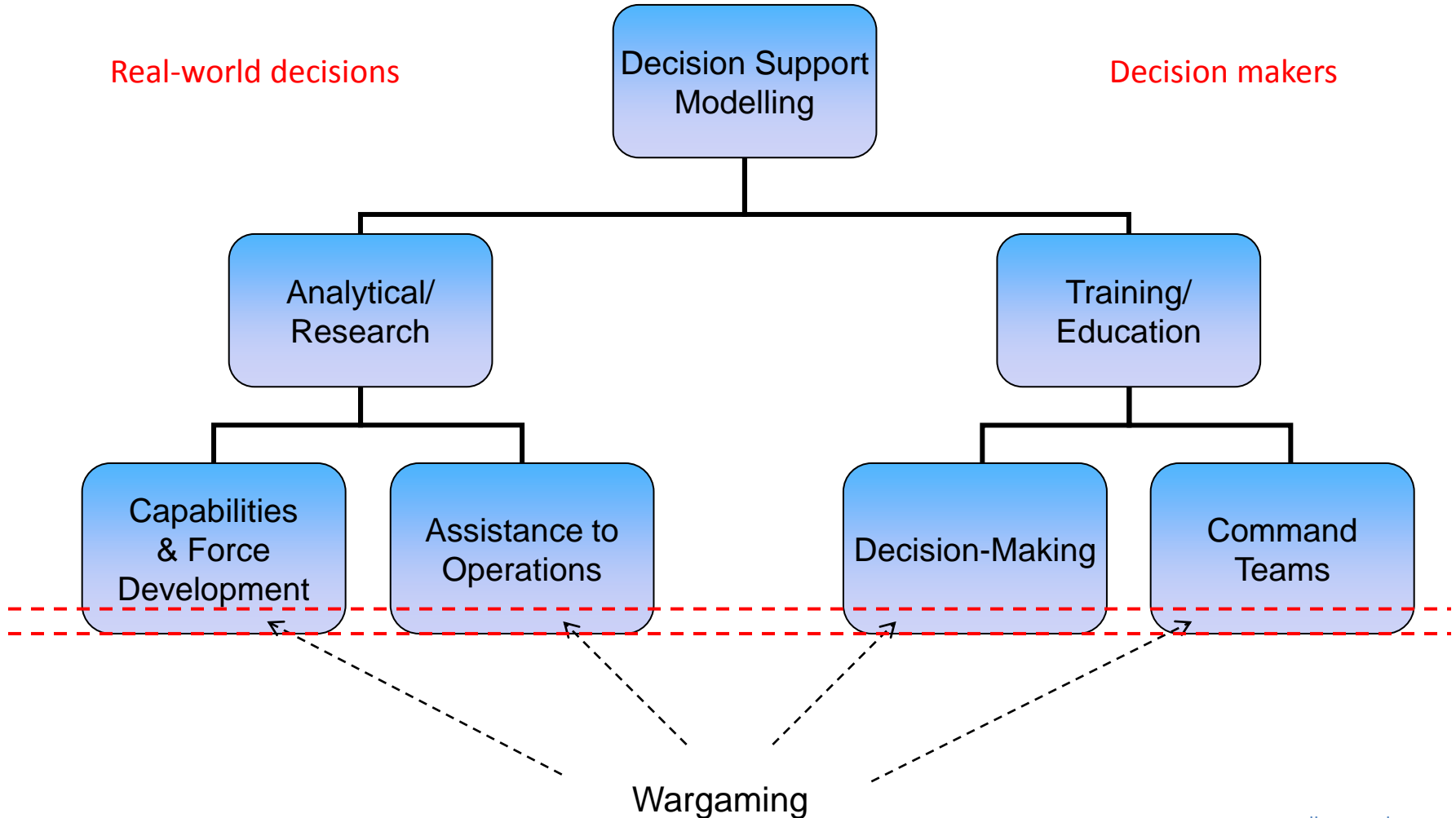
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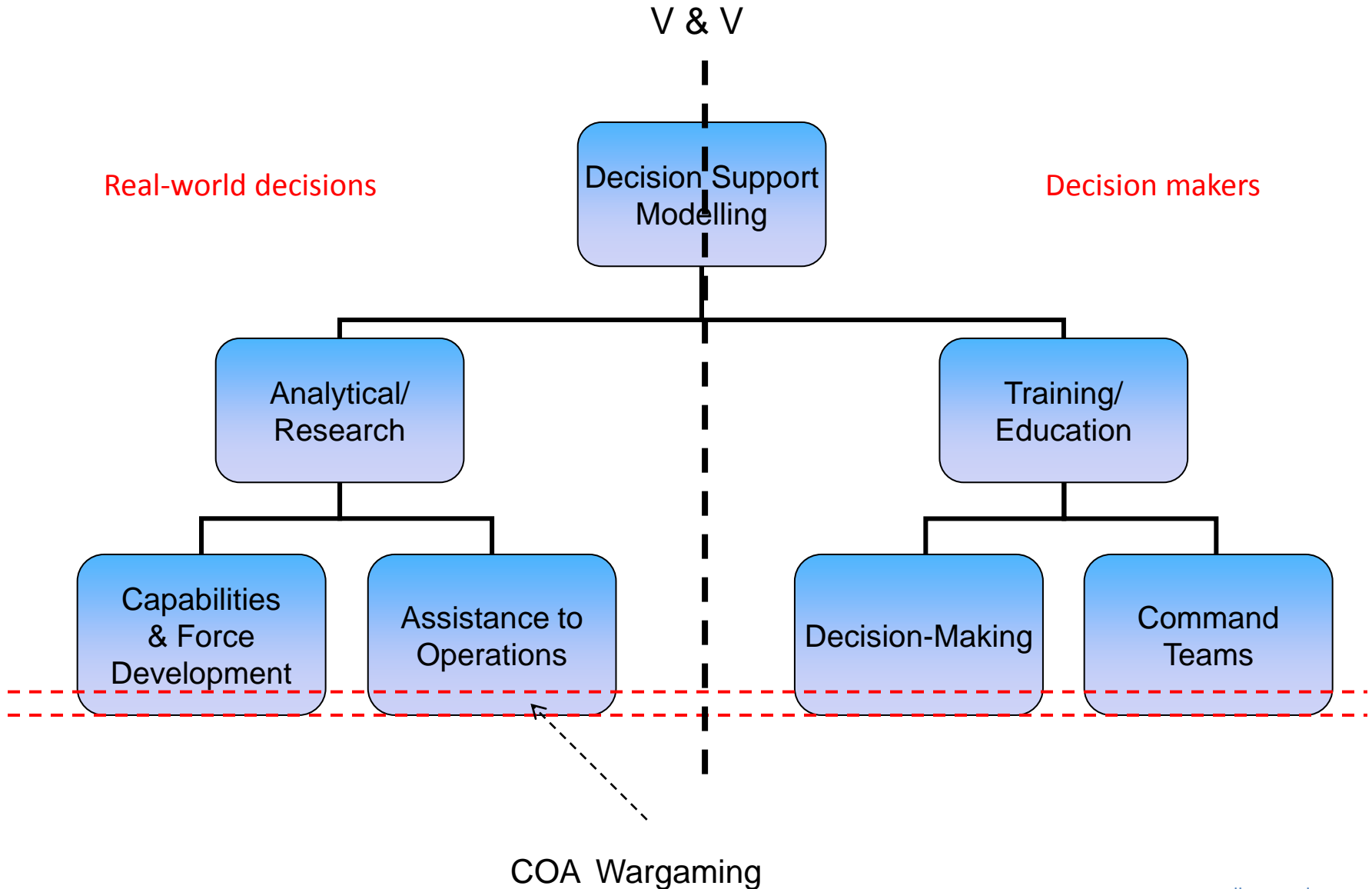
Distinctions

➤ Types of Wargame

Distinctions



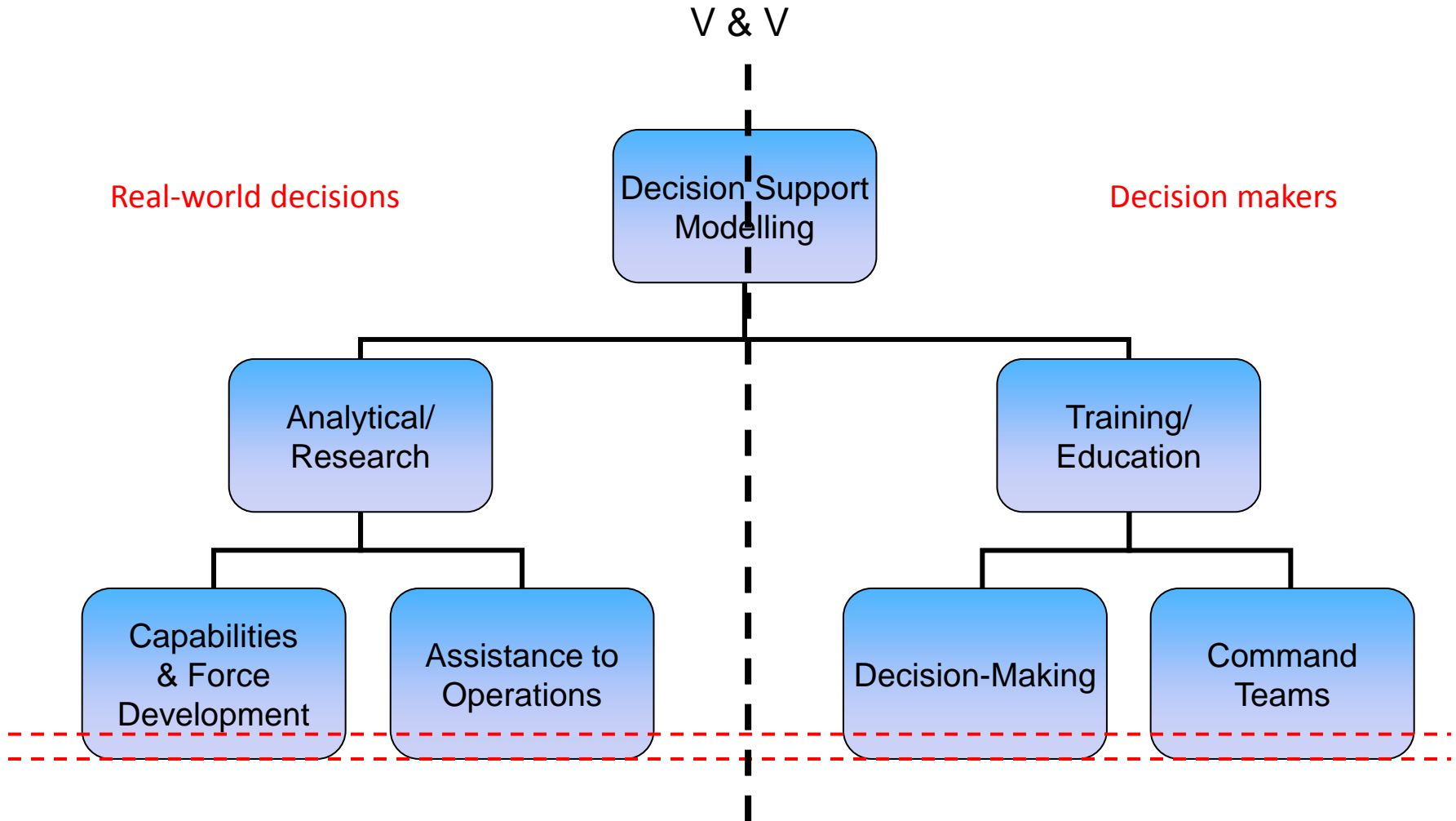
Distinctions



Distinctions

- Types of Wargame
- Validation versus verification
 - Is it fit for purpose?
 - Are outcomes sufficiently realistic?

Distinctions



Distinctions

- Types of Wargame
- Validation versus verification
- Education vs Training
 - A war vs the war vs any war

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The Design Team:

‘It is important to make one thing clear at the very start; designing a wargame is an art, not a science. Experienced **military officers, practiced operations research analysts, and accomplished computer programmers are not necessarily capable of designing useful wargames**. Although some or all of the knowledge and skills for such people are important tools for a wargame designer to possess, the nature of game design requires a **unique blending of talents**’.

Peter Perla. *The Art of Wargaming*, Naval Institute Press, 1990.

1. Military officers
2. Operational Analysts/Researchers
3. Simulation authority (software/technical, manual?) and relevant SMEs
4. Wargame designer

Design

The Design Process for a **training** wargame:

1. Specify the wargame Aim and **Training Objectives**
2. Identify the **people** to be trained, their roles and the **decisions** they will be expected to make
3. Determine the **effects on the players** that are desired, and the exercise activities required to achieve these
4. Determine the **setting** and **scenario** and the **types, level and sources of all information** the players will need to make their decisions and to enable the desired effects to be visited on them
5. Identify the **processes** required to enable the outcomes of Steps 3 & 4
6. Identify the **tools, technology and SMEs** needed to make the exercise elements and processes work
7. Create an audit trail by documenting all decisions taken and the reasons for them

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The Design Process for a **research** wargame:

1. Specify the aim (to include the overall Research Question) and objectives
2. Identify the subject(s) of the analysis, and any critical elements within these
3. Determine how the subjects of analysis will be evaluated , any required scenario and any variables that will be required to achieve this
4. Identify the metrics that will need to be gathered to measure and gauge this evaluation, and how this data capture will be done
5. Identify the people required to ensure the validity of the analysis
6. List any assumptions made to date
7. Identify the processes required to achieve the objectives
8. Devise the tools, techniques and SMEs needed to make the processes work
9. Create an audit trail by documenting all decisions taken and the reasons for them

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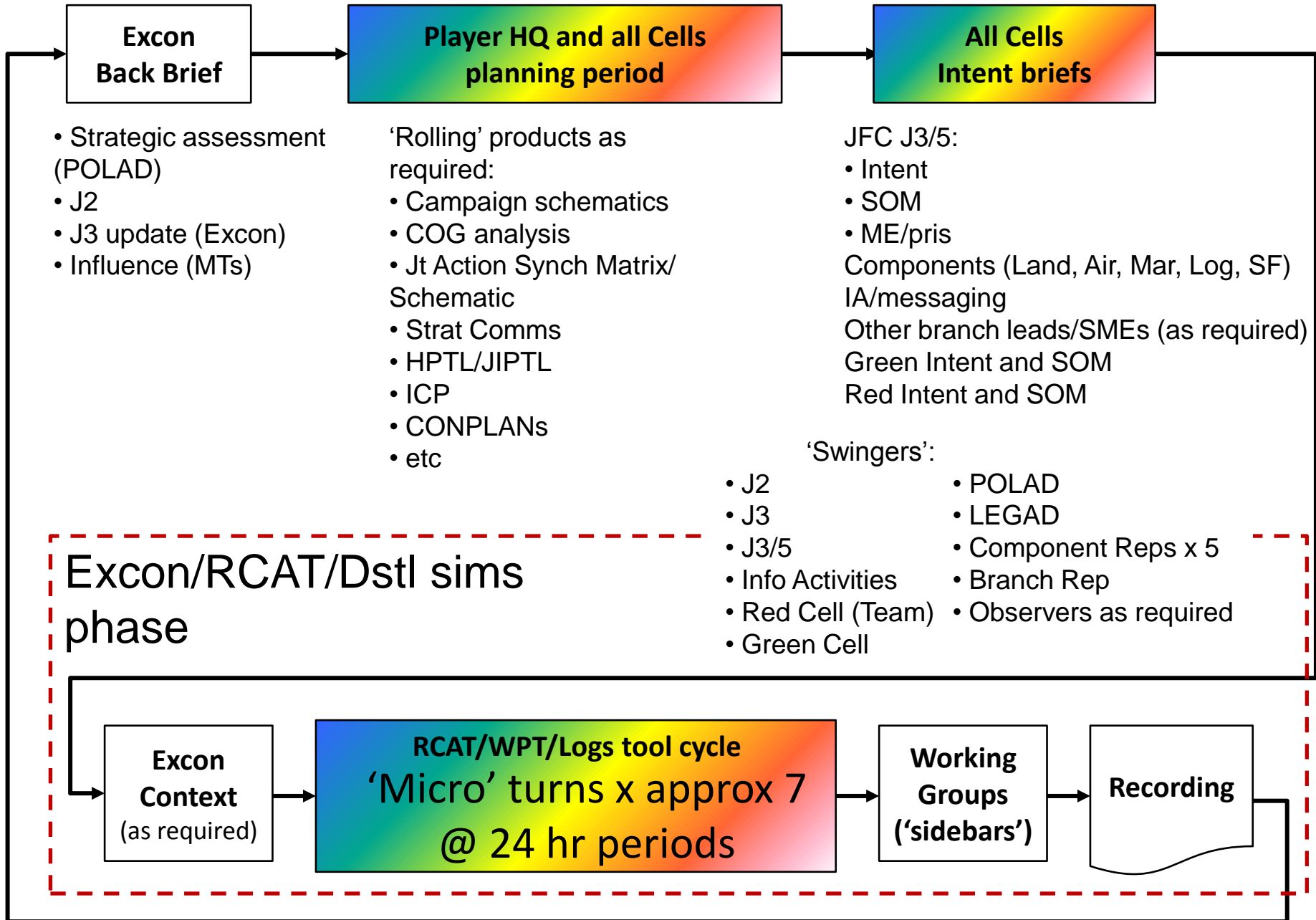
Design

It's the **process**, stupid:

‘The successful conduct of a CAX depends more on the correct composition of exercise components (Ex Control, Ex Support and Training Audience) than on the efficient tackling of technical issues’.

Erdal Çayirci. ‘Computer Assisted Exercises: A Reference Guide’, p.16

'Macro' turn @ approx 7 days



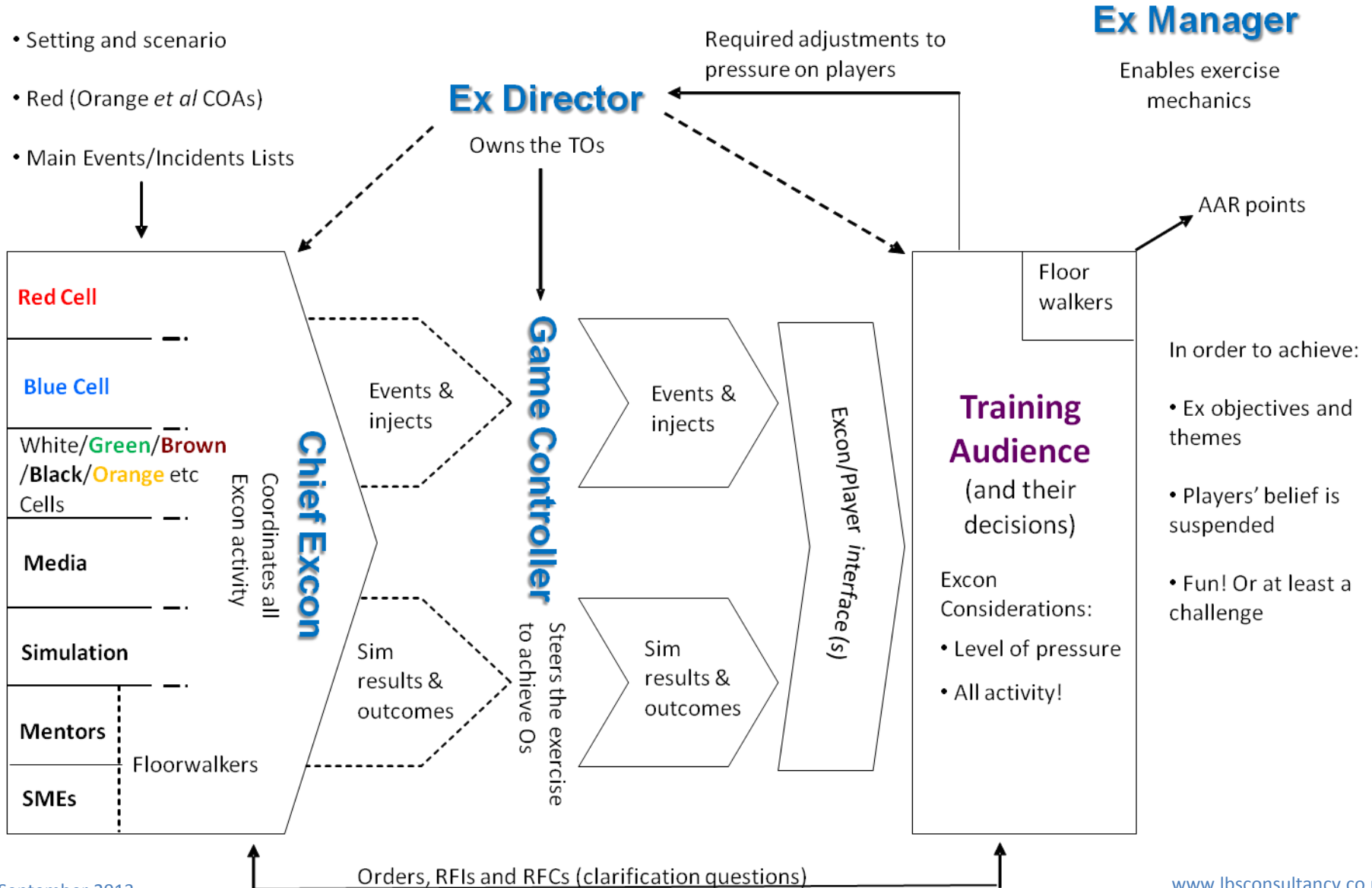
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Delivery

Pre-considered:

- Setting and scenario
- Red (Orange *et al* COAs)
- Main Events/Incidents Lists



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The Power of Wargames

- A greater understanding of conflict
- Better decision makers and decision making
- An opportunity to:
 - manage risk but without risking lives
 - practise key skills in a joint, combined and interagency context
 - reveal unintended consequences
 - test assumptions
 - build confidence, trust and pre-position relationships
- Exposure to:
 - the full spectrum of conflict at all levels, current and future
 - the friction inherent in all military operations
 - an adaptive thinking opponent
- A mechanism for:
 - exploring innovation in the art of war
 - experimentation and exploring 'what if' questions
 - developing and refining force structures and operational modus operandi
- Players facing the consequences of a their own decisions
- An enjoyable, challenging and engaging environment

Conclusions

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Conclusions

- Good wargaming saves lives
- Overarching doctrine
- Build the wargaming community and communicate (better)
- Address the 'military credibility test'
- Education (of MOD personnel)

Questions at end