



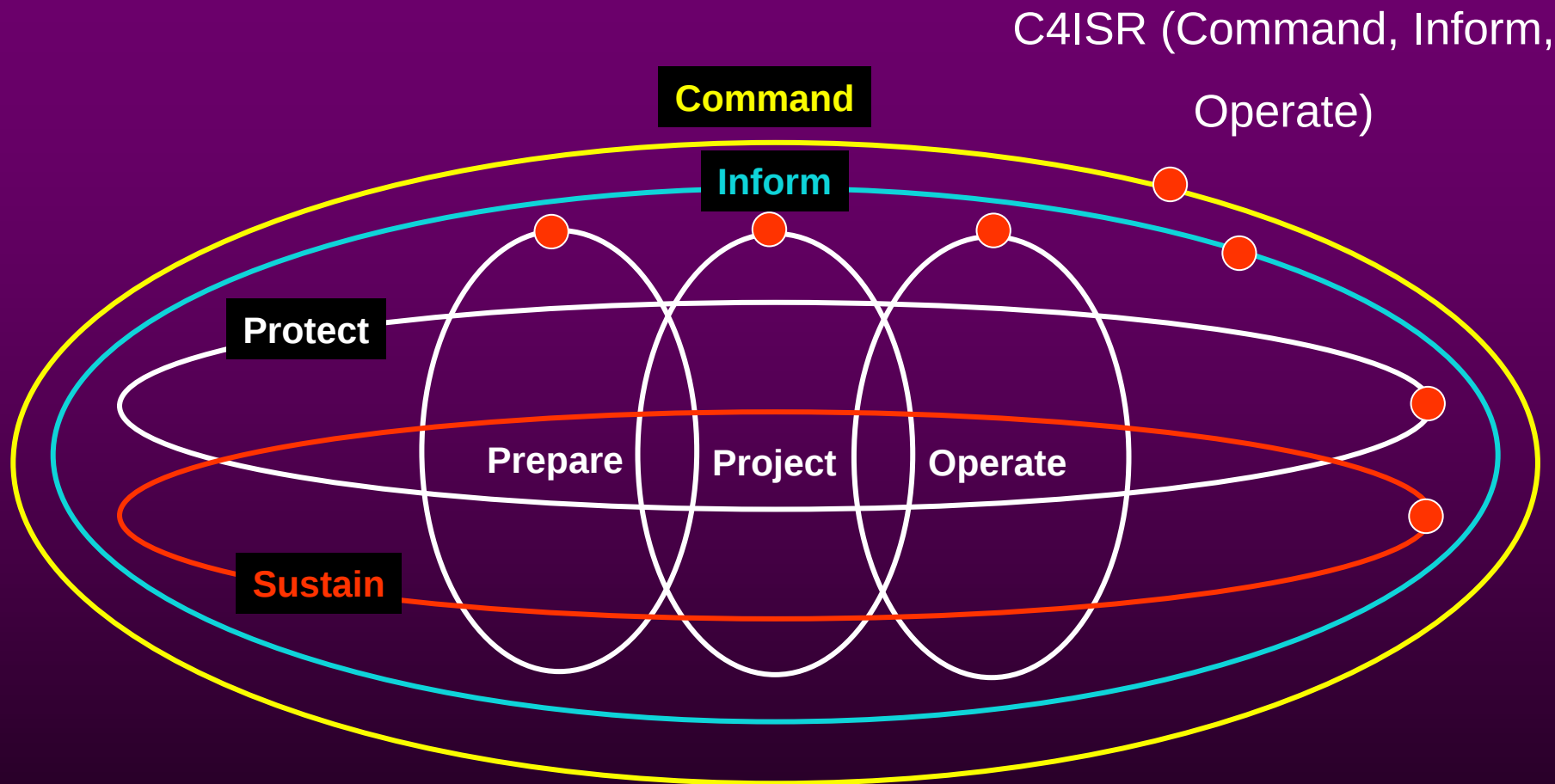
C4ISR - A Future Perspective

- ❑ 5 Key issues
 - ❑ 1 - Agility
 - ❑ 2 - Interoperability
 - ❑ 3 - Operate, 4 - Command, 5 - Inform
 - ❑ *The Defence Capability Framework*

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The Defence Capability Framework



'Command' & 'Inform' are inseparable



JOINT DOCTRINE AND CONCEPTS CENTRE DEFENCE CAPABILITIES FRAMEWORK

INFORM

The acquisition, collation, processing, management and distribution of information

Component Level

Back

Gain Information

The capability to obtain or secure facts, processed data or instructions in any medium or form

Analyse Information

The capability to examine methodically and in detail the constitution or structure of facts, processed data or instructions in any medium or form, in order to add cognitive value to military activity

Disseminate Information

The capability to distribute selectively facts, processed data or instructions in any medium or form

Maintain Information

The capability to ensure the currency, integrity and/or distribution of facts, processed data or instructions in any medium or form

Capability
Areas

Military Strategic Level

Military Strategic Level

Military Strategic Level

Military Strategic Level

Operational Level

Operational Level

Operational Level

Operational Level

Tactical Level

Tactical Level

Tactical Level

Tactical Level

Military
Capabilities



Key Issues 1- Metrics of Capability

- Agility (enabler for Tempo - 'speed within context')
 - Responsiveness
 - *Speed of reaction (to the unexpected)*
 - Robustness
 - *Capable of multiple missions*
 - Flexibility
 - *Multiple paths to success (unpredictability)*
 - Adaptability
 - *Learning & adapting (to the unexpected)*



Key Issues 2 - Interoperability

- US
 - *Unit of currency - scale or capability - NEC*
- Other Key Allies & 'Coalitions of the Willing'
 - *Rate of technological progression*
 - *Backwards procedural compatibility: 'UK Armed Forces will require commanders and staffs who have the patience, tact, flexibility and cultural empathy needed to minimise the drag on tempo'*



Key Issues 3 - Operate

- Effects Based Operations
- Lexicon of Effects
 - *Encourage, reassure*
 - *Influence, persuade, dissuade*
 - *Prevent, deter, coerce*
 - *Disrupt, isolate, degrade*
 - *Disable, destroy*
- The ultimate effect is cognitive



Key Issues 4 - Command

□ Philosophy

- *Mission Command - 'synchronisation'*
- *Virtual expression of 'Command Intent'*
- *Personal qualities of the commander*

□ Structures

- *Adaptive C2, 'reach back' & 'reach forward'*
- *Environmental Components, Levels of Command & Staff functions must be reconfigured*



Key Issues 5a - Inform

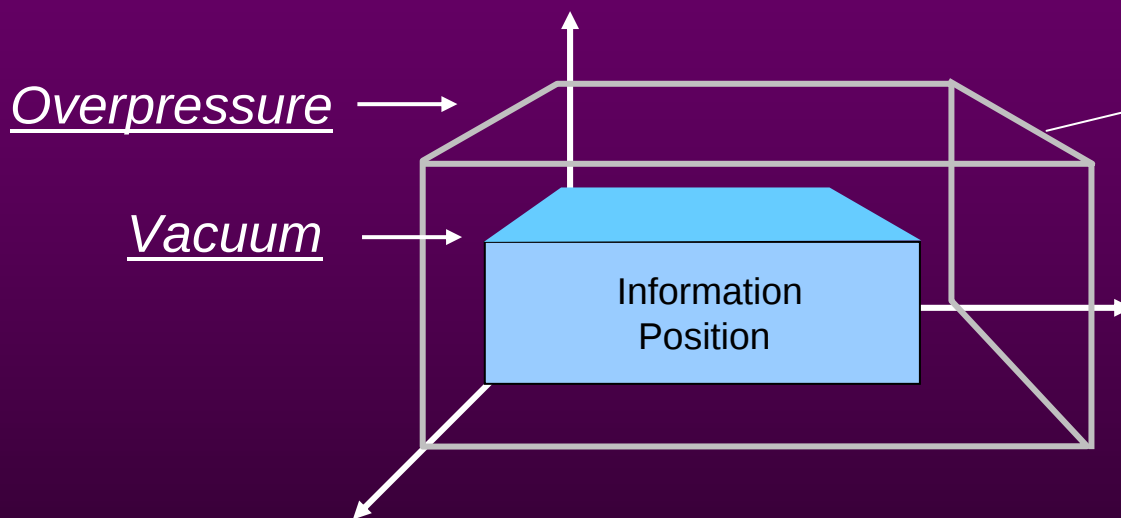
- ❑ 'Wider & Deeper' - to enable Effects Based Ops
 - ❑ *3 Instruments of Power*
 - ❑ *Underlying causes of conflict - appropriate effects*
- ❑ *24/7 not always feasible* - 'We cannot be all-seeing all the time - we simply do not have the resources' (CDS to RUSI 10 Dec 01)



Key Issues 5b - Inform

Precision & accuracy, currency, timeliness, assurance, completeness

Richness



Quality of Interaction

Voice, data, text,
static & dynamic images,
degree of delay, interaction
(collaborative planning)

Reach

Geography, range, continuity, cross-component & echelon,
cross-coalition, cross-functional areas



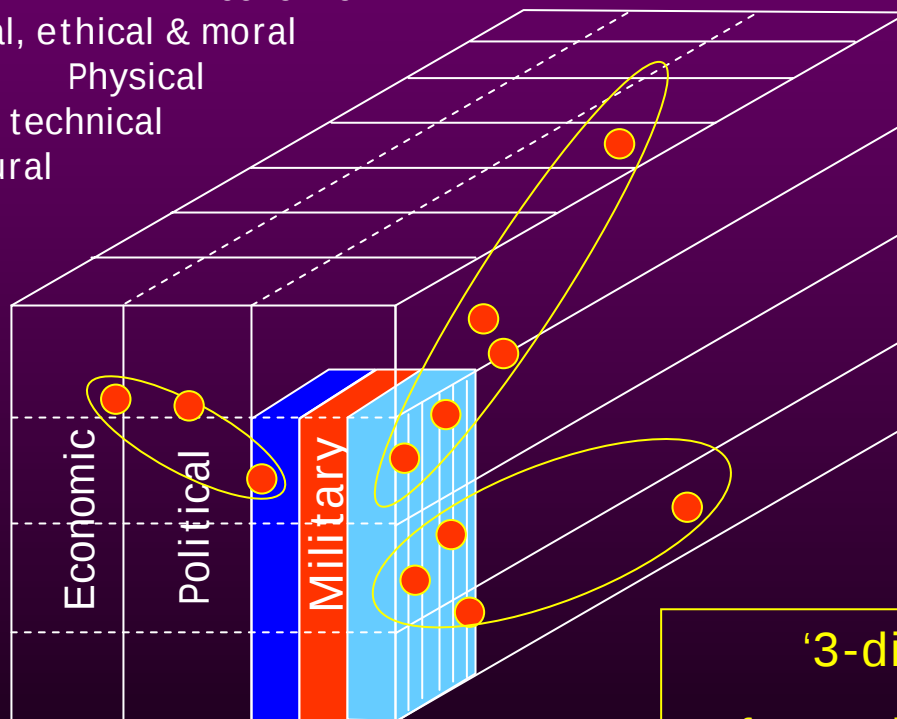
Key Issues 5c - Inform 'Wider & Deeper'

7 Dimensions of the Strategic Environment

Political
Economic
Legal, ethical & moral
Physical
Scientific & technical
Social & Cultural
Military

Levels of Operation

Grand Strategic
Strategic
Operational
Tactical

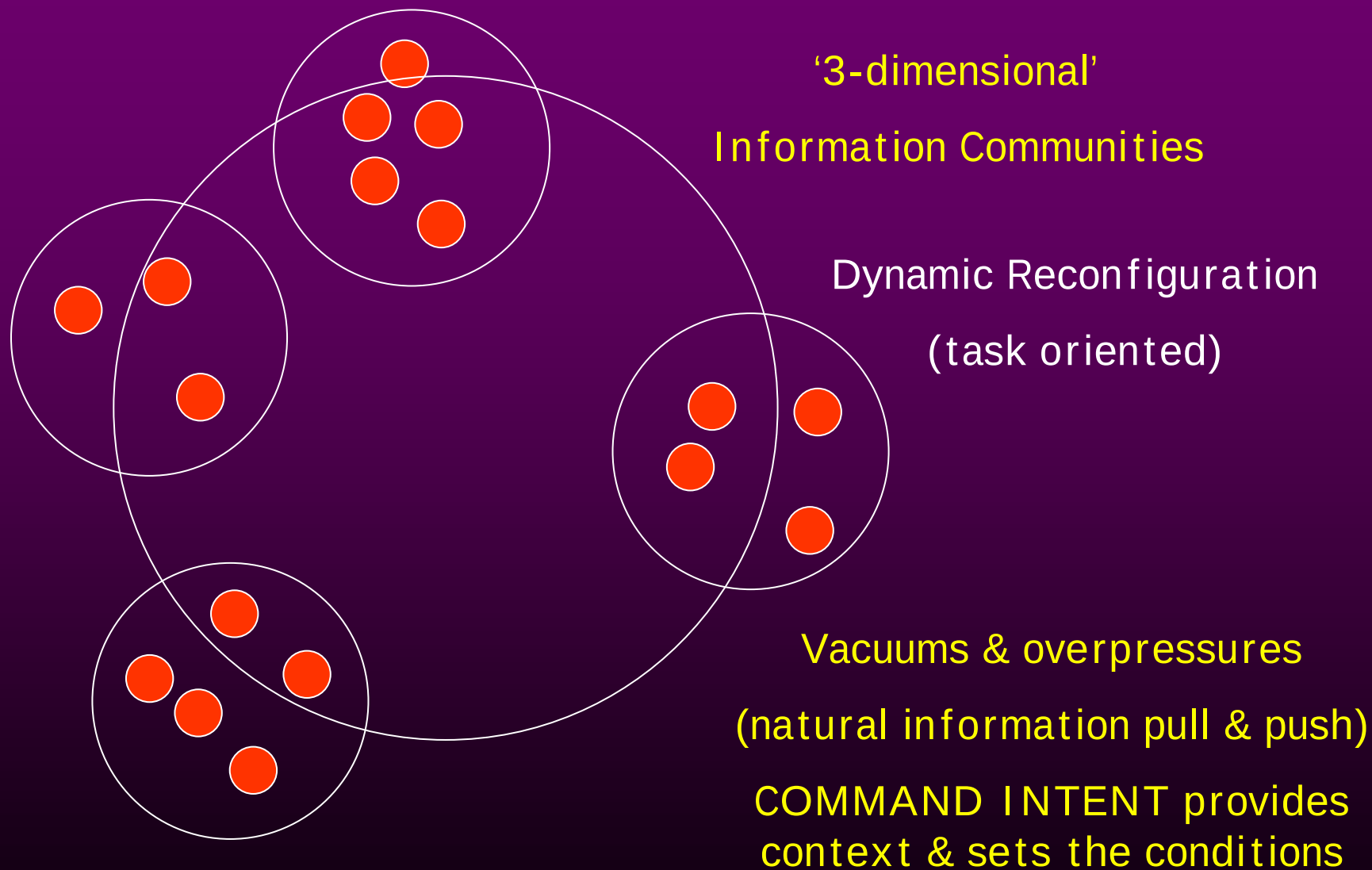


Instruments of Power

'3-dimensional'
Information Communities



Key Issues 5d - Inform





Key Issues 5e - Inform

- Joint Awareness & Assessment System (JAAS)
 - *More than pictures & graphics*
 - *Covers all Components of Defence Capability*
 - *Richer, shared understanding of R, B, W intent*
 - *History & projection - assist the commander to envisage 'multiple futures'*
- *Procedural Discipline*
 - *A reversal of current trends (e.g. e-mail)?*



Summary

- ❑ Defence Capability Framework
- ❑ Agility
- ❑ Interoperability
- ❑ Effects Based Operations
- ❑ Command
- ❑ Inform