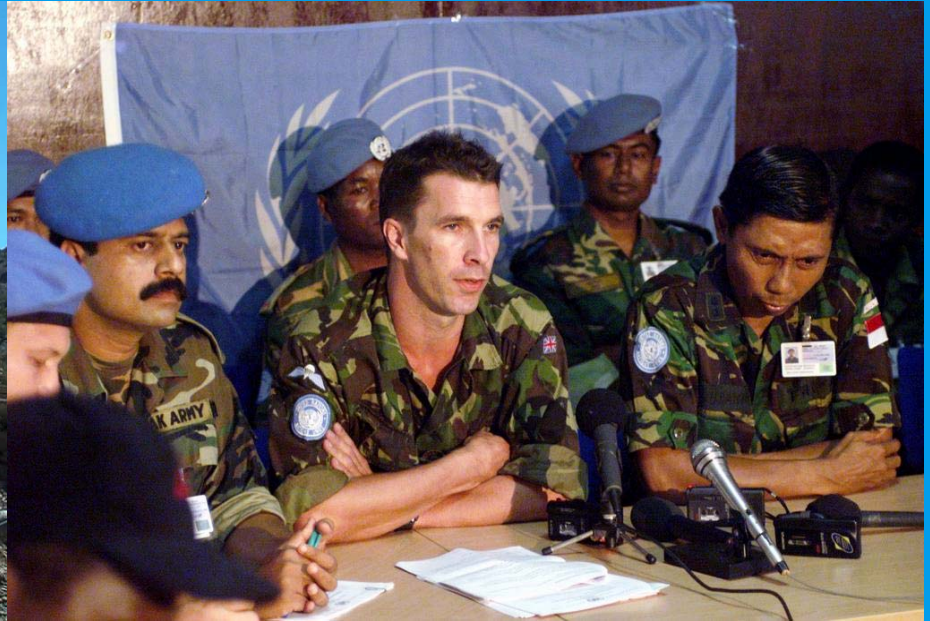


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Non-Technical Interoperability in Multinational Forces

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QinetiQ

Background

- Multicultural issues raised in MOD CRP work on distributed and ad-hoc teams, e.g. communication of commander's intent, incompatibility of command style (Mills and Pascual, 1997)
- Report of DSAC working party on Science and Technology requirements for coalition warfare highlighted the importance of organisational factors (1999)
- Presentation draws on:
 - Organisational and sociological factors of multinational forces. (MOD CRP)
 - Future Command Headquarters. (MOD ARP)

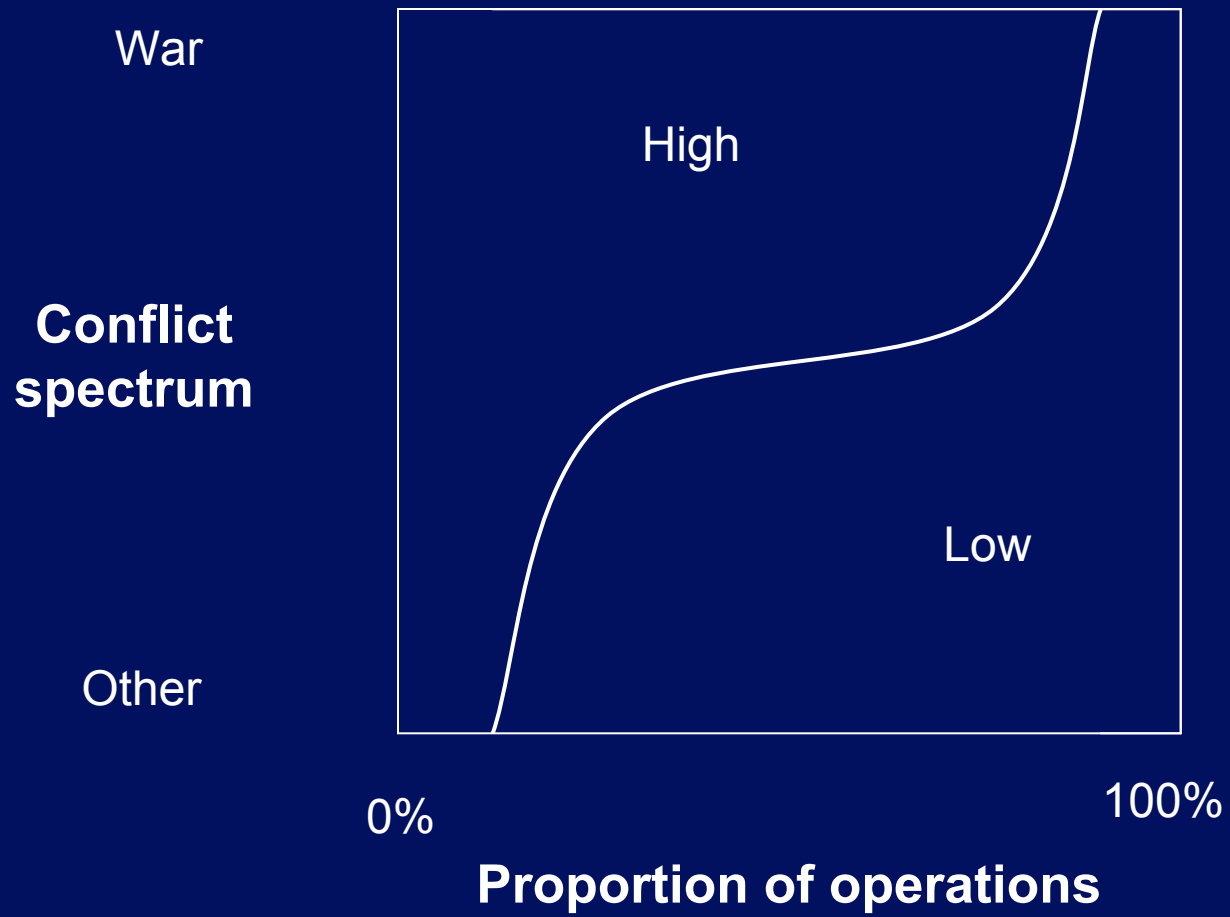
Background

- Future operations are likely to be characterised by:
 - multinationality (coalition / alliance)
 - multi agency involvement
 - operations across the spectrum of conflict
 - asymmetry
- So what? Multinational operations are nothing new!
 - levels of multinational integration
 - wider diversity of coalition partners
 - coalitions of the willing

Interoperability

- Physical / technical interoperability
 - weapons, ammunition, spares, CIS
- Multinational partners may differ in technological sophistication

Possible technological sophistication of primary multinational partners



Interoperability

- Physical / technical interoperability
 - weapons; ammunition; spares; CIS
- Multinational partners may differ in technological sophistication
- Command and control capability relies on a ‘socio-technical system’ (technology + people, process, organisation)
- Non-technical interoperability
 - co-operability
 - organisational interoperability
 - interoperability of mind

Tempo drag

- “the friction within a machine - human or mechanical - increases in proportion to the number of its parts”

(van Creveld, 1977)

- The metaphor should be extended to consider goodness of fit between the component parts
- ‘Tempo drag’ may be associated with incompatibilities between national contingents

(Kiszely, 1999; Thackeray, 2001)

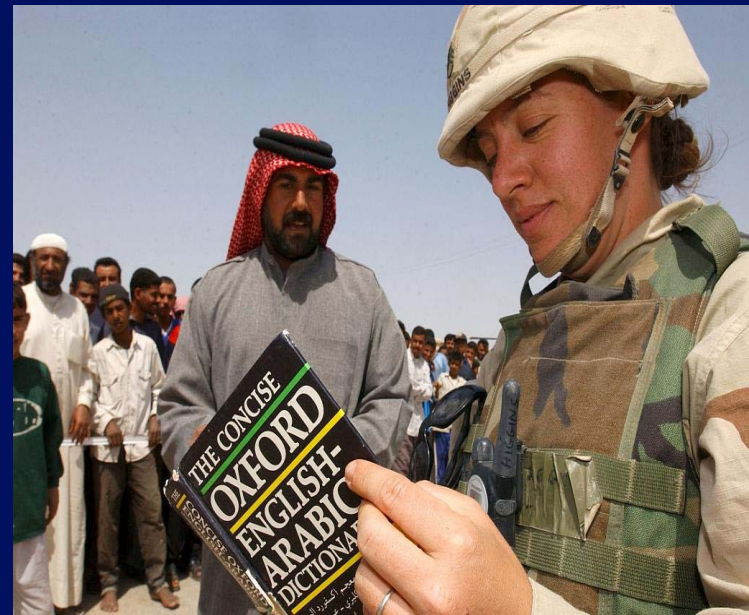
CRP - Military Baseline Study

- Identification of frictional factors
- Interview studies
 - Semi structured interviews
 - 45 officers with multinational experience (2001/2)
 - 10 multinational 'leaders' (2003/4)
- Literature review
 - Information database developed
- Questionnaire studies
 - Tool developed based on analysis of interviews
 - 3 postal surveys (n = 160)



Military Baseline - Selected Findings

- Language
 - Competence in English across the MNF
 - Standardisation of military-technical terminology
 - British use of English
- Trust and confidence
 - Perception of capability
 - Intelligence sharing
- Preparation
 - Informal solutions
- Command style / doctrine
 - Attitudes to hierarchy
 - Philosophy of command
 - National influence in the command chain



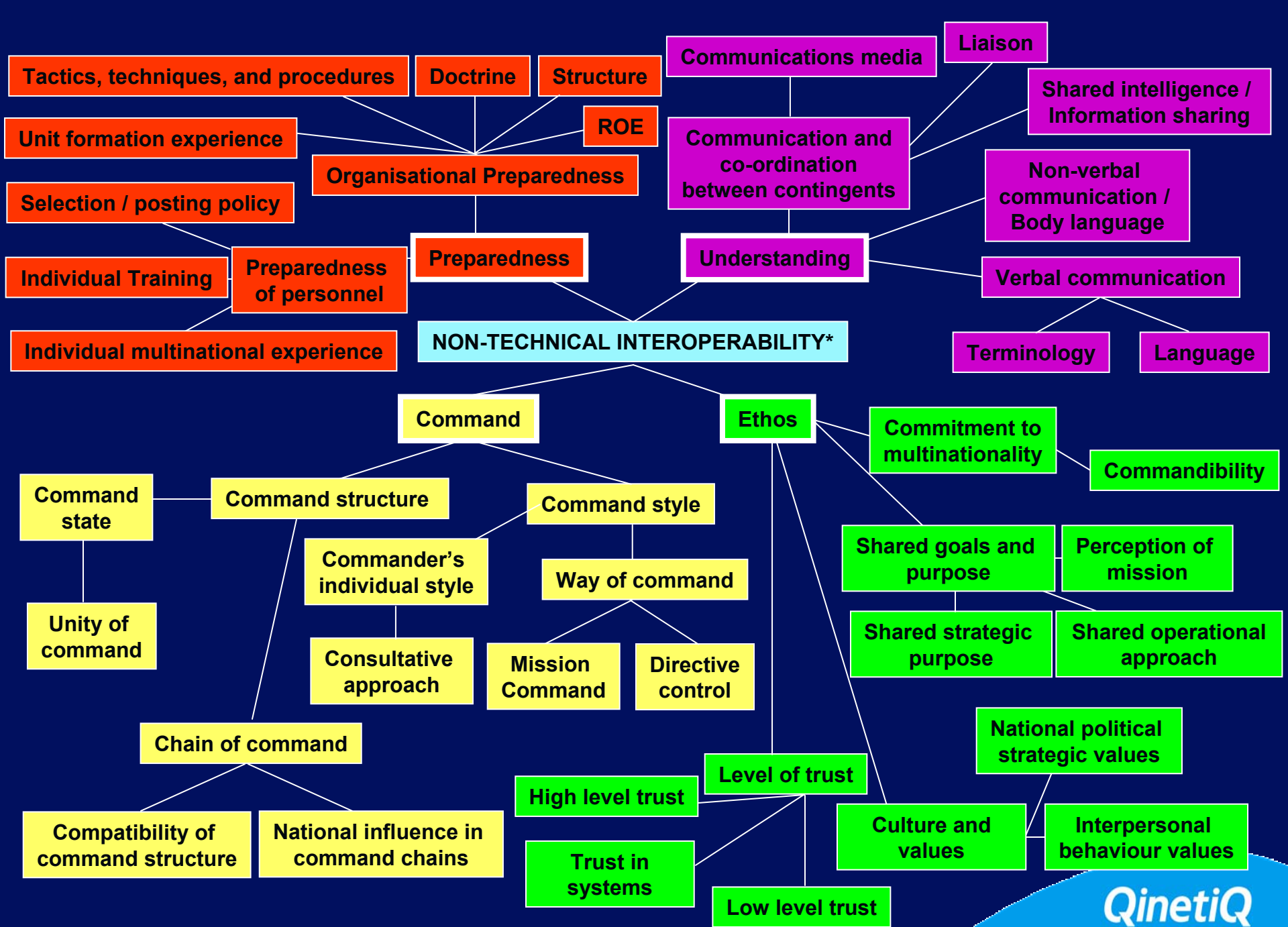
ARP - Development of a Non-technical Interoperability Framework

- Aims:
 - To construct a framework of the factors underpinning NTI
 - To develop a prototype Commander's NTI risk analysis tool
- Few attempts to address non-technical interoperability
- DSTO's Organisational Interoperability Model
 - Clark and Jones (1999), Clark and Moon (2001)

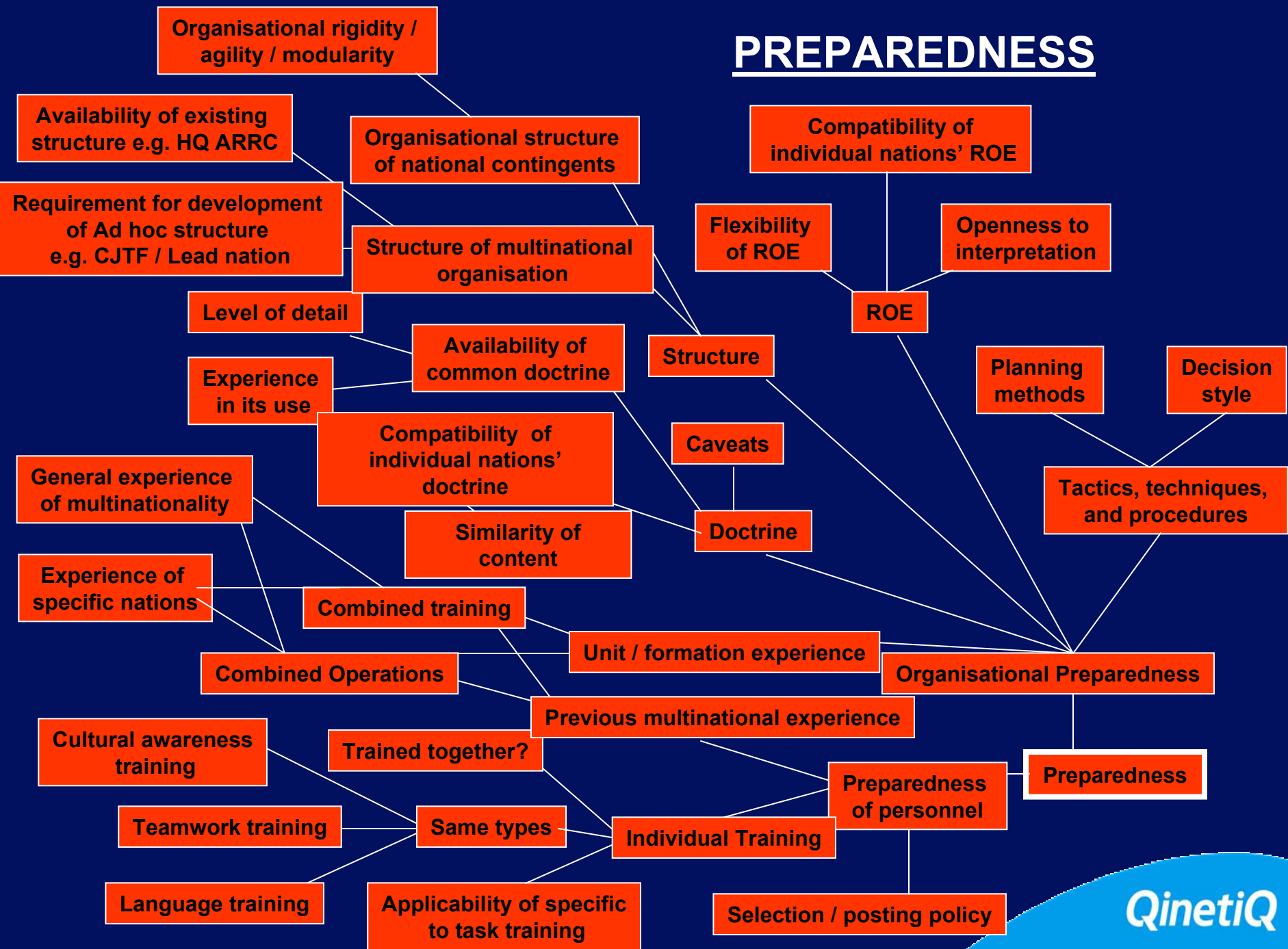
ARP - Development of a Non-technical Interoperability Framework

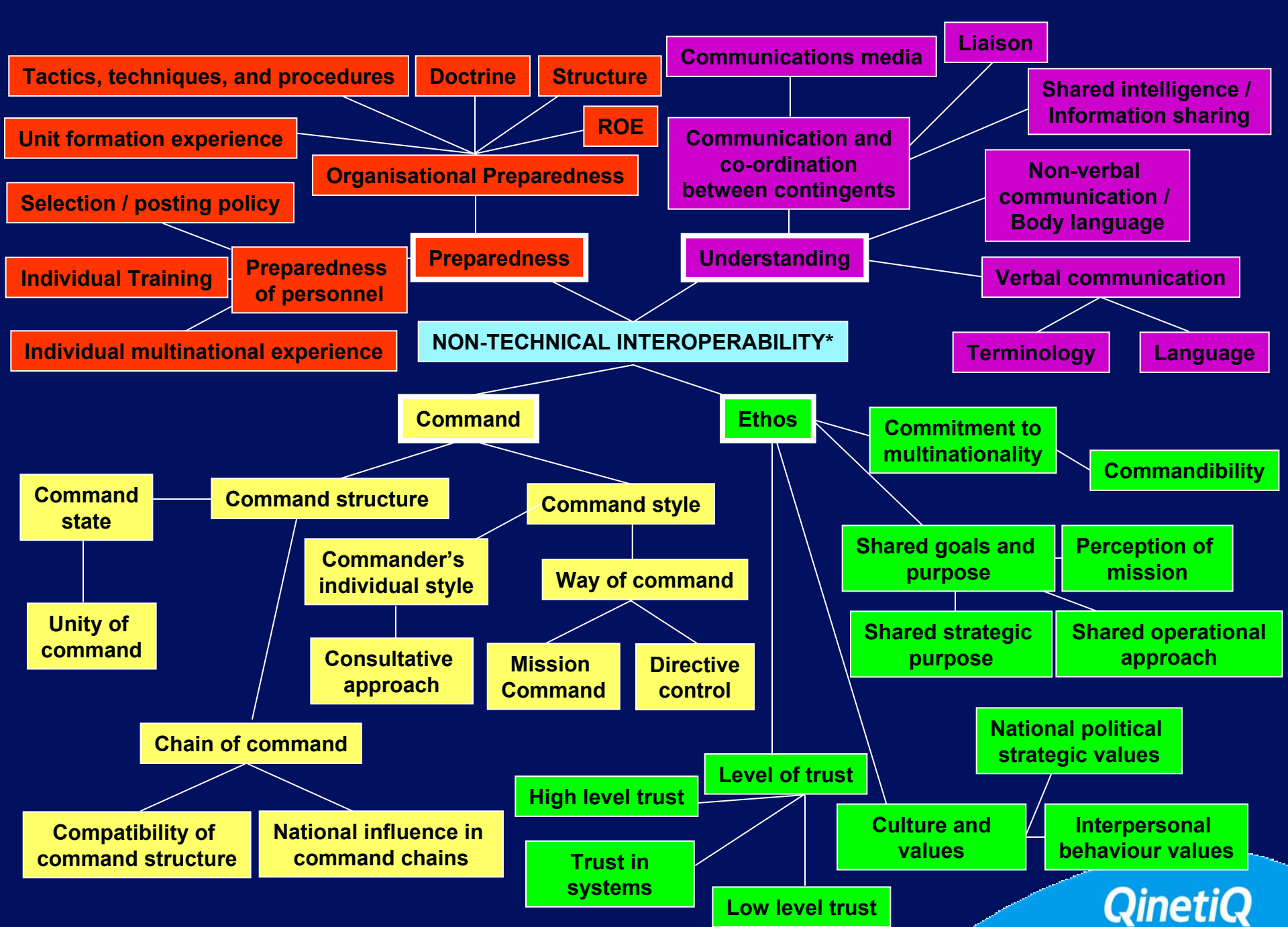
- Framework development based on:
 - Literature reviews
 - CRP interview study
- Structure based on DSTO's 4 enabling attributes of Organisational Interoperability
- Validation / iteration through:
 - 2 military judgement workshops
 - CRP leadership interviews



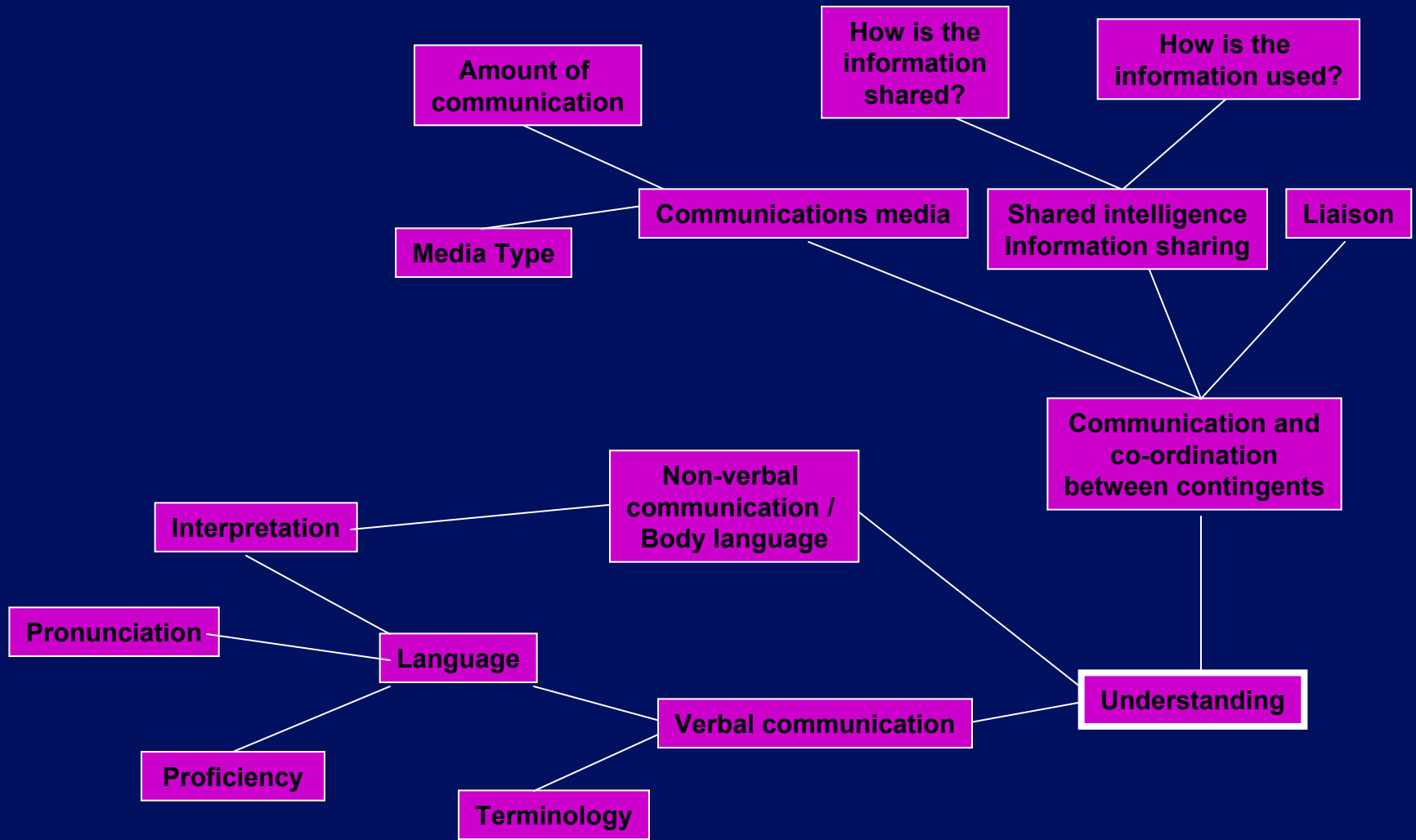


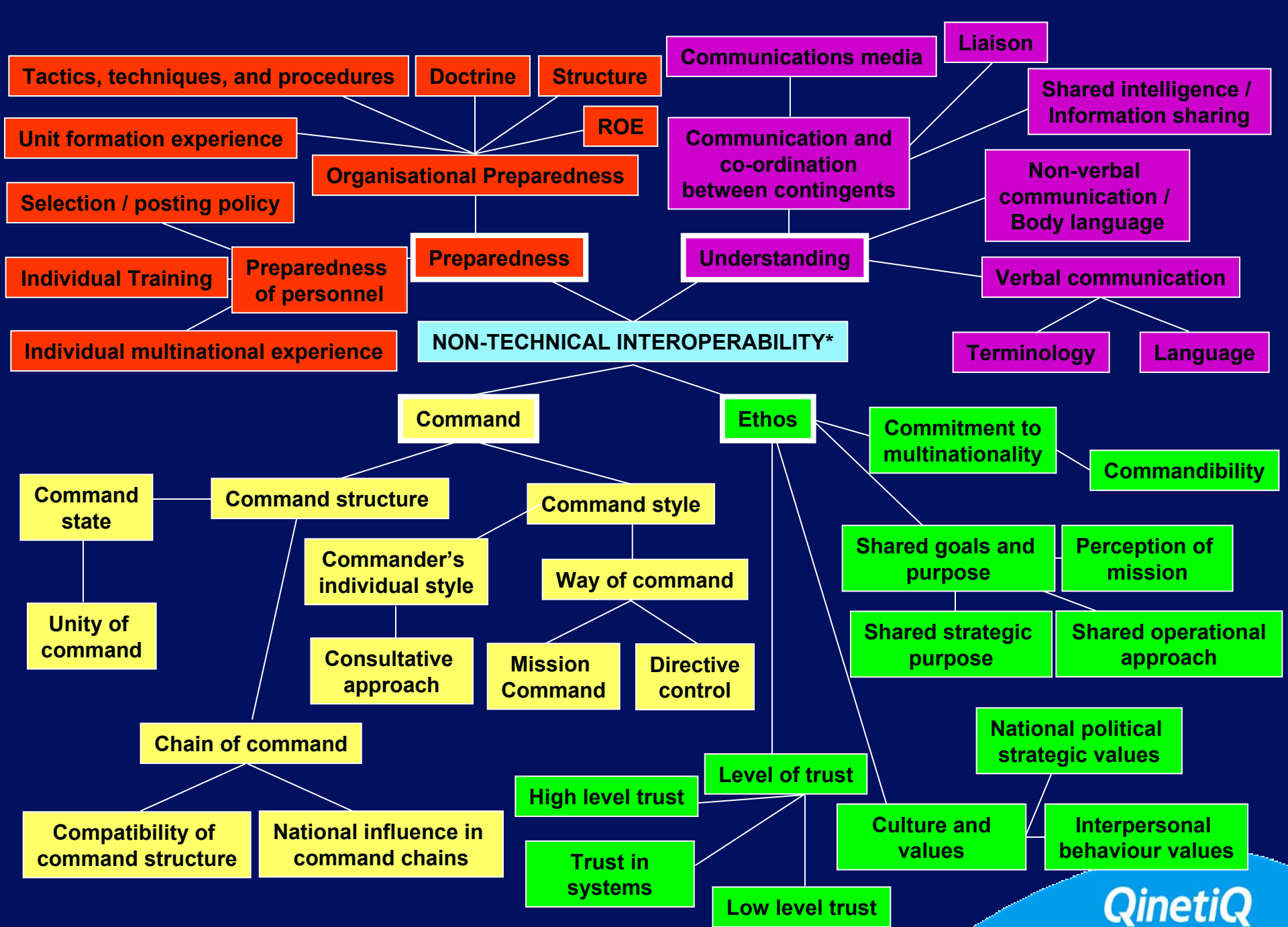
PREPAREDNESS





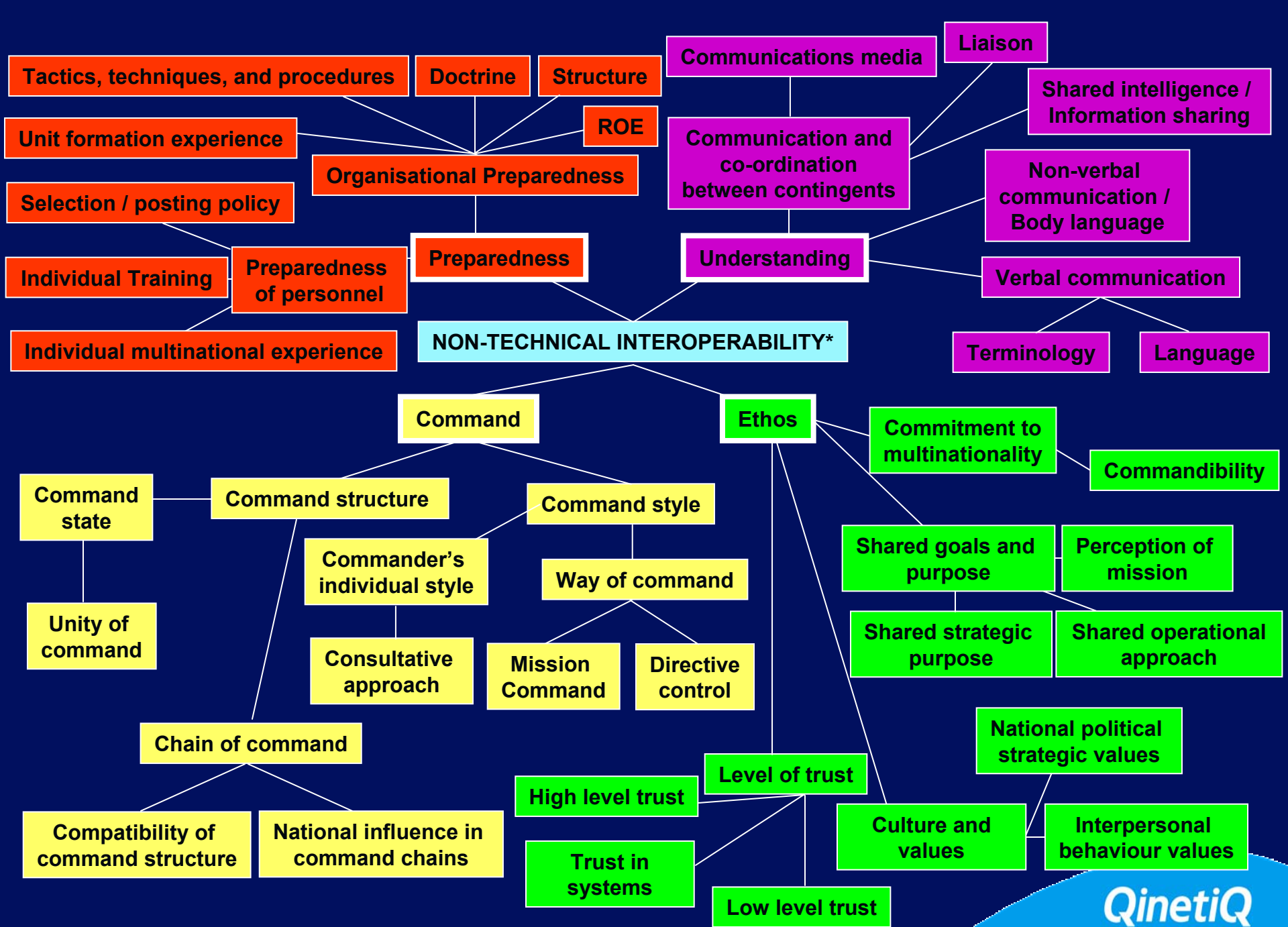
UNDERSTANDING



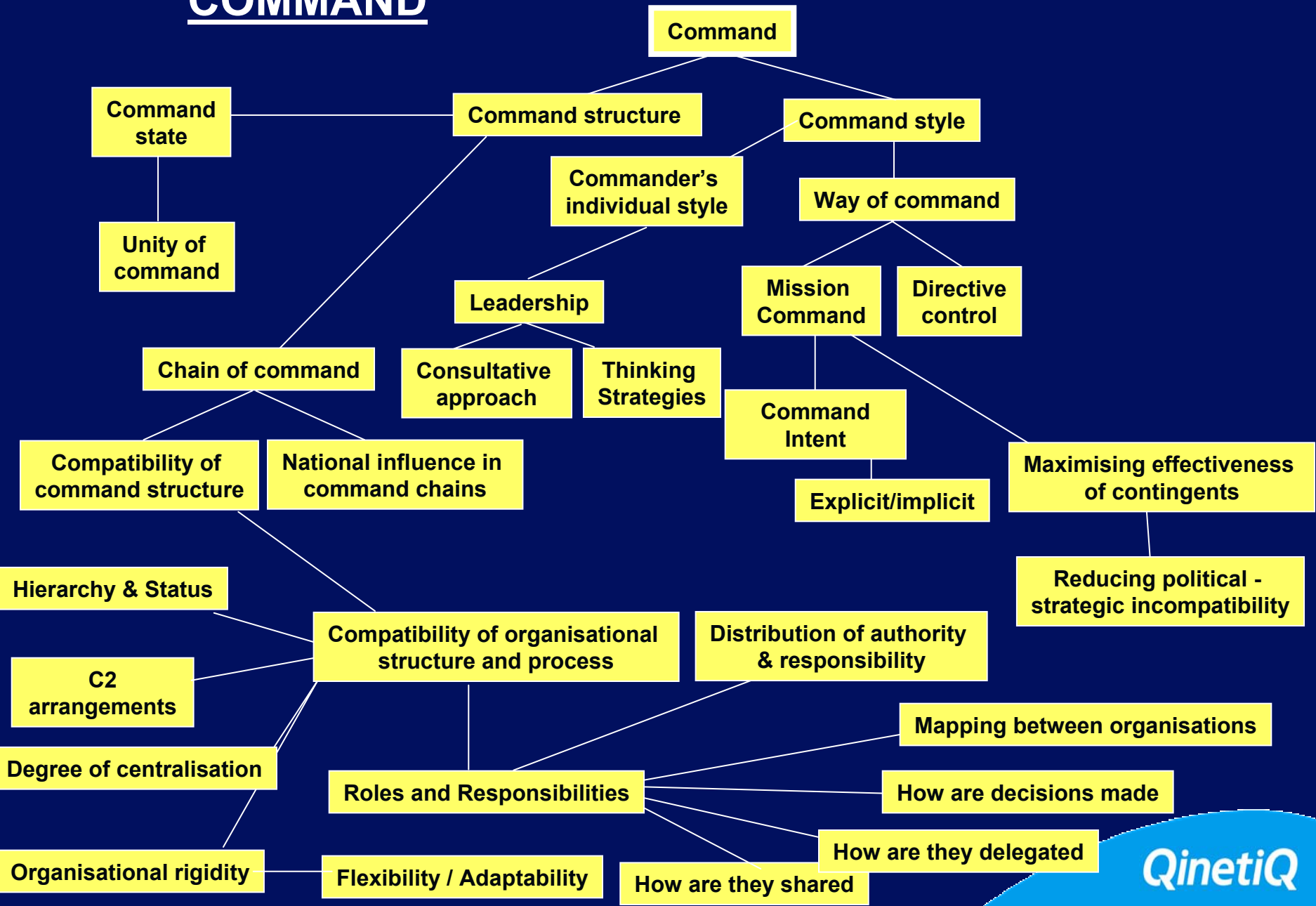


ETHOS





COMMAND



MNF Cooperability Index

Score =	1	2	4	8	12	16
Terminology <i>(From Understanding attribute)</i>	Military-technical terminology is standardised across national contingents	'Formal' terminology acknowledged	General doctrine covers some aspects of terminology	Separate ways of working, lack of standardised terminology used among co-operating forces	Willingness to move towards standard terminology, but no action taken or progress made	No standardised terminology used
ROE <i>(From Preparedness)</i>	Coalition-specific ROE that are accepted and understood by all	High levels of common interpretation and implementation of ROEs	Similar interpretations and implementation of the compatible ROE	Similar ROE, but some differences in its content and context, additional guidance required	Willing to consider compatible ROEs, but still independent	Lack of consistent ROE, differences in its content and context and no standard approach in the employment

Potential Intervention Areas

- Include
 - Process standardisation
 - Language ability
 - Training and education
 - Combined training
 - Experience
 - Liaison



Related Research

- Related research included:
 - Liaison officers
 - Way of command
 - Leadership in multinational forces
 - Non-military organisations
 - Cultural awareness training
- International research collaboration
 - NATO HFM panel TG on multinational forces
 - TTCP TP 11 'The human in command'

Conclusions

- Multinationality is likely to increase
- Non-technical frictions are inevitable
- Awareness supports mitigation

“Very possibly, Norm Schwarzkopf’s greatest single achievement was his extraordinary ability to weld this babel of armies into one fighting force, without offending dozens of heads of state. Schwarzkopf was also a master at getting along with his Arab hosts. He had lived in the region as a young man and was a serious student of Arab culture. Big, profane Norm could sit and drink tea with Arabs and exchange courtesies for hours with the best of them.”

Powell, p475-6

“John Yeosock’s and Chuck Horner’s long experience in that part of the world.....made them perhaps the most relaxed Americans there. They were familiar enough with Arabic not to totally depend on the translator; and, more important, they could read the facial expressions and body language of the Arabs, which allowed them to understand the emotions behind much of what was going on.”

(Clancy, p184-5)

“I had seen a great deal of active service in the Middle East. I spoke some colloquial Arabic, liked and respected Arabs, and understood their way of life.....I found that the Arabs like and respect a foreigner who has taken the trouble to learn their language, since he has made an effort not only to master their speech, but also to understand their religion, culture and history.”

(De la Billiere, p12-14).

*Non Technical
Interoperability in MNF*
Questions?

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