

Structured Decision Making for Capability Development

1st National Defence Capability Development Symposium



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Structured Decision-Making for Capability Development

- Challenges
- NZDF Case studies
 - Programme development
 - Capability acquisition
- Some other defence applications
- Benefits and key trends



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Capability Development Decision Making

- Some challenges
 - Multiple objectives
 - War-fighting, peace-keeping,...
 - Multiple stakeholders
 - Services, other agencies, Government,...
 - Often conflicting
 - Multiple alternatives
 - Often hard to compare
- It's difficult!



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NZDF CP-Minor Programme Development

- Background
 - NZDF Directorate of Capability Development improving investment case development
 - Strategic analysis
 - Options analysis
 - Implementation analysis
- Situation
 - Minor capital acquisitions (<\$7m NZD)
 - Large number of required projects
 - Decreasing available annual budget
 - Conflicting demands
 - Need for transparency in decision making



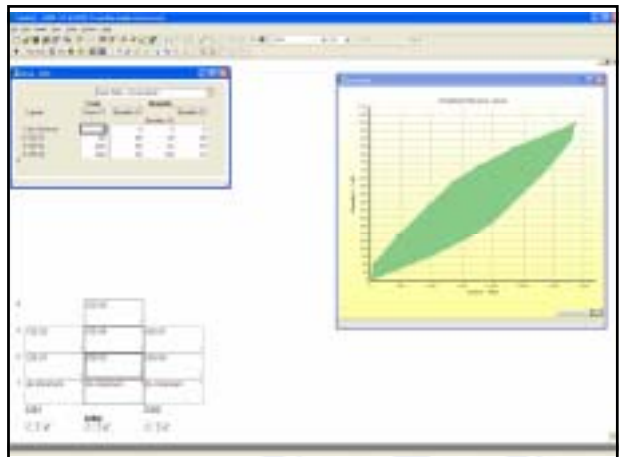
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Multi-Criteria Approach

- Considered outcomes first
 - Set of criteria covering all benefits, costs and risks
 - Why is the capability of value to defence?
 - Tangible and intangible
 - High-level from defence strategy
- Series of single service/branch structured workshops
 - 'Decision Conferences'
 - Independently facilitated group of stakeholders
 - Applying military judgement
 - MCDA software model – Equity3
 - To capture judgements
- Scoring and weighting process
- Prioritised set of projects
 - In order of decreasing benefit/cost ratio



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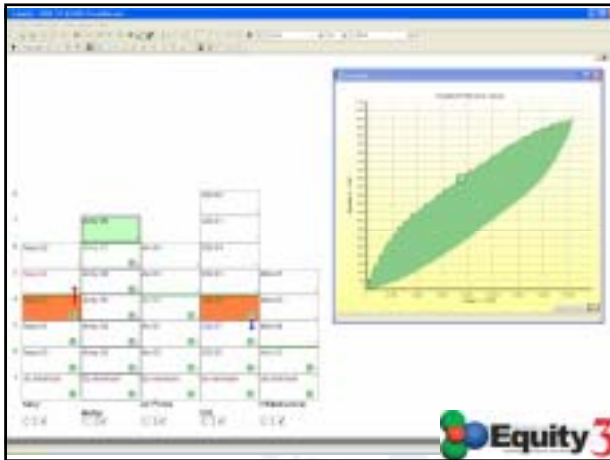
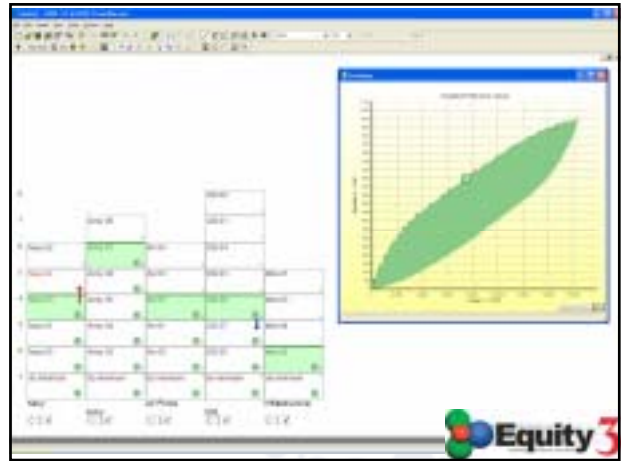


Multi-Criteria Approach

- ICMC Decision Conference
 - 'Merge' single service/branch prioritised lists
 - Examine consequences
 - CP-Minor budgets, Operating expenditure, etc.
 - Explore trade-offs
 - Within constraint of 2007-8 CP-Minor budget
 - Single, cross-defence prioritised programme
- ELT Endorsed programme



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CP-Minor Outcomes

- 2007-8 Programme signed-off at ELT
- Programme supported by all involved
 - Single services
 - Other branches
 - MoD
- Transparent, robust process
- Just starting 2008-9



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RNZAF Advanced Pilot Trainer Capability

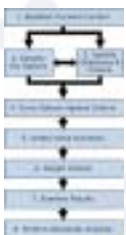
- Situation
 - Lease on existing aircraft due to expire
 - Need to look at alternative approaches
 - Determine best overall approach for advanced pilot training
 - Advanced phase of wings
 - Multi-engine consolidation and role training
 - Develop main gate business case for approval to pursue one approach
 - Initial gate retained all approaches



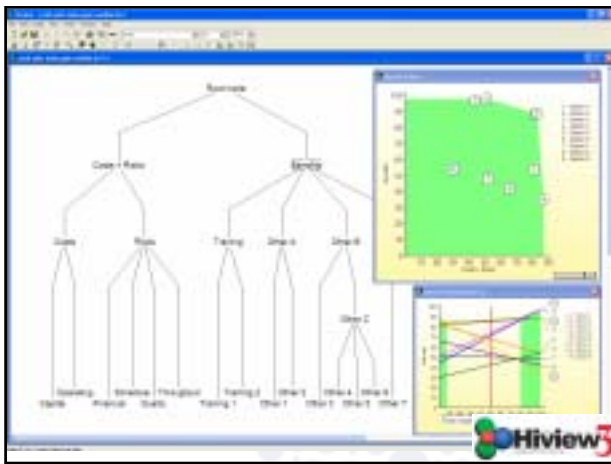
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Multi-Criteria Approach

- Considered outcomes first
 - Set of criteria covering all benefits, costs and risks
 - Why is the APTC of value to defence?
 - Tangible and intangible
- Structured evaluation of alternatives
 - Independently facilitated group of stakeholders
 - Applying military judgement
 - MCDA software model
 - To capture judgements
- Examination of 'benefit v cost v risk' trade-off
- Main-gate business case



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APTC Outcomes

- Considered diverse range of approaches
- Main gate business case passed Treasury pre-approval
 - Recommendation to pursue one approach for acquisition
 - Clear view of value APTC brings to defence
 - No adverse comments!
- Significant time saved
 - Business case process
 - Acquisition phase



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Other Defence Capability Applications

- Capability strategy development
- Capability development plan prioritisation
- R&D Programme prioritisation
- Requirements prioritisation
- Business case development
- Acquisition/procurement
 - Supplier selection/negotiation
 - Deployment prioritisation
- Both customer and supplier



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Some Other Catalyze Defence Case Studies

- UK MoD
 - Annual Equipment Programme prioritisation
 - Defence Information Infrastructure Acquisition and roll-out
 - CVF Prime mover selection
 - AWB coastal suppression option evaluation
- Royal Navy
 - Type 45 Frigate main gate business case
 - Naval base review decision support
 - Platform maintenance strategy development
- Australian DoD
 - DCP prioritisation trial
- Selex
 - Annual strategy prioritisation
- BAe Systems
 - R&D programme prioritisation



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Structured Capability Decision Making

- Key points
 - Identify capability outcomes first - benefits
 - What value does the capability bring to defence and stakeholders? Why is it needed?
 - Tangible and intangible
 - Link to high-level strategy
 - Group of stakeholders to evaluate options
 - Against the benefits, relative to each other
 - Rigorous, structured approach
 - Software tools may be appropriate
 - Independent facilitation
 - Maintain transparency throughout
- Benefits
 - Transparent
 - Inclusive
 - Efficient
 - Allows apples to be compared to pork chops
 - Delivers best value-for-money



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More information

- World-class structured decision making and strategy consulting
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