Using Disruptive Innovation to Maximise the Effectiveness of National Defence Forces

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Disruptive Innovation
• As Christensen described it, disruption happens when a smaller company successfully challenges "established incumbent businesses" by first providing products or services that appeal to a niche part of the market; that niche could be overlooked by customers or customers new to the market.

Disruptive Technology
• A technology that significantly alters the way that businesses operate. A disruptive technology may force companies to alter the way that they approach their business, risk losing market share or risk becoming irrelevant. Christensen popularized the idea of disruptive technologies in the book “The Innovator's Dilemma” in 1997.
Delivering Military Capability – A Model

Define

Evaluate

Plan

Employ

Generate
Define – Defence Primary Outputs

- National Defence and Security Strategy
- Standing Tasks and Commitments
- Programmed Tasks and Commitments
- Contingent Tasks and Commitments
- Treasury Limits

This drives:

- Armed Forces Structure
- Equipment Programme
- Desired Operating Budget
Plan – Force Structures

- Assumptions
- Force Design
- Force Elements
- Force Integration

Desired Capability

Current Environment:
- Generally Monolithic Systems of Record (HR/Equipment/Finance)
- Stovepipes by Service and Centre – often acquired in isolation
- Spreadsheets to fill gaps?
- Static! (data and systems)
- Expensive with significant infrastructure and through life costs
Generate Force Elements @ Readiness

• Manpower
• Equipment
• Training
• Sustainability
• Readiness/Preparedness Mechanism

Current Environment:
- Often Ad Hoc Single Service or Command led developments
- Multiple and unconnected
- Dependent upon individuals and spreadsheets
- Unaggregated
- High Cost of adoption and implementation
Employ

- Data
- Information
- Assessment
- Action

Timely Decisions

Current Environment:
- Enterprise focused
- Disaggregated
- Complex interpretation (no enabled decision support)
- One-off (no Lessons captured or learned)
Decision Support Components

Data
Information
Assessment
Action
Decision Support Components and Elements

Data
- Data Sources
  - Manpower
  - Equipment
  - Training
  - Sustainability

Information

Assessment
- Activity Scheduling
- Readiness
- Structures
- Costing
- Risk
- Analysis
- Reporting

Action
- Timely Decisions
Innovation as the Disruptor

• Small Pieces of the whole
• Aggregation – of data and assumptions
• Mobility – of data and information
• Visualisation – of the entire enterprise or a part of it
• Whole Force Metrics – Value for Money and Effectiveness
• Evidence Based Evaluation – Using experience and Information

• Accelerated, timely and informed decisions
• Disrupting the current sclerotic stovepipes
• Innovating a piece at a time
Decision Support – Disruptive Innovation

Data Sources
- Manpower
- Equipment
- Training
- Sustainability

Information
- Activity Scheduling
- Readiness
- Structures
- Costing
- Risk
- Analysis
- Reporting

Assessment

Action
- Decision Support Model
- Decision Support Tool
- Timely Decisions

Disruptive Innovation
In delivering bite size chunks
Decision Support – Disruptive Innovation

Data Sources
- Manpower
- Equipment
- Training
- Sustainability

Data
- Information
- Assessment
- Action

Activity Scheduling
- Readiness
- Structures
- Costing
- Risk
- Analysis
- Reporting

Decision Support Model
- Decision Support Tool

Timely Decisions

Disruptive Innovation
In delivering bite size chunks
Manpower
Equipment
## F35 Operational Deployments

### Operational Activity

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<th>Date</th>
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**Timeline:**
- **Operational Activity:**
  - F35 Operational Deployments

**Details:**
- Operational Activity
- Competences
- Locations
- Organization Units
- History
Sustainability
Evaluate – Develop and Improve Through Enhanced Understanding

- Operational Analysis
- Decision making
- Capability gaps shortfalls
- Cost effectiveness

Appropriate Decision Support

New Environment:
- One agreed version of the Truth
- Consistent Aggregated and Visible Data
- Low initial capital outlay, reduced Infrastructure and through-life costs
- Agility