



Australian Government
Department of Defence

Defence Innovation Hub Conference

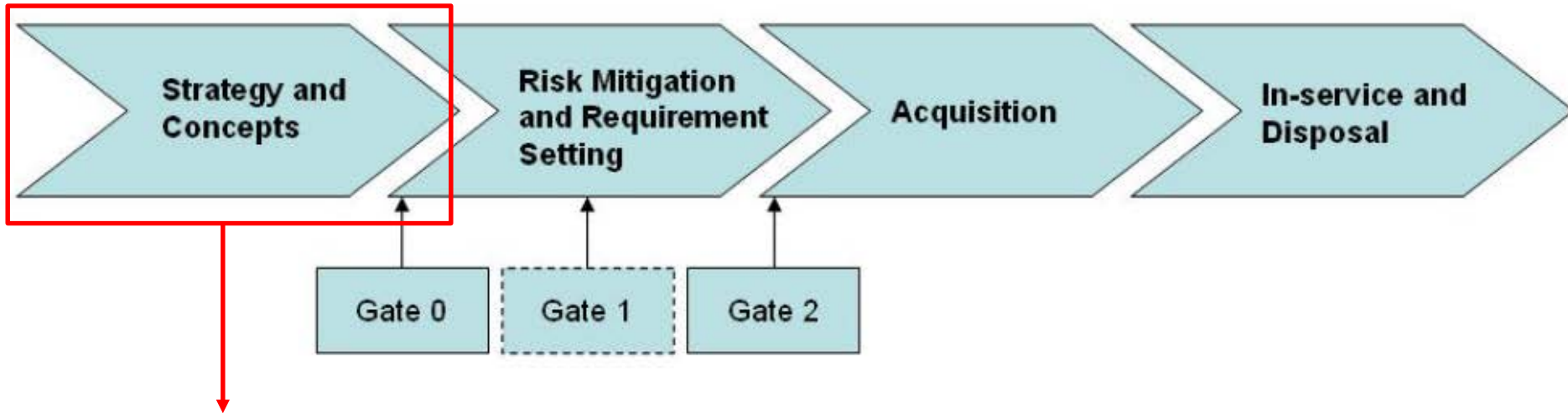
Force Design Update and Innovation Investment Priorities

BRIG Jason Blain
Force Design Division
Wed 10 Oct 2018



- Force Design and the Capability Life Cycle
- Force Design and Innovation
 - Responding to Risks
 - Balancing Capability, Strategy and Resources
- Update on Force Design Activities
 - Defence Capability Assessment Program
 - Engaging with Industry and Partners
- Innovation Priorities and Future Challenges

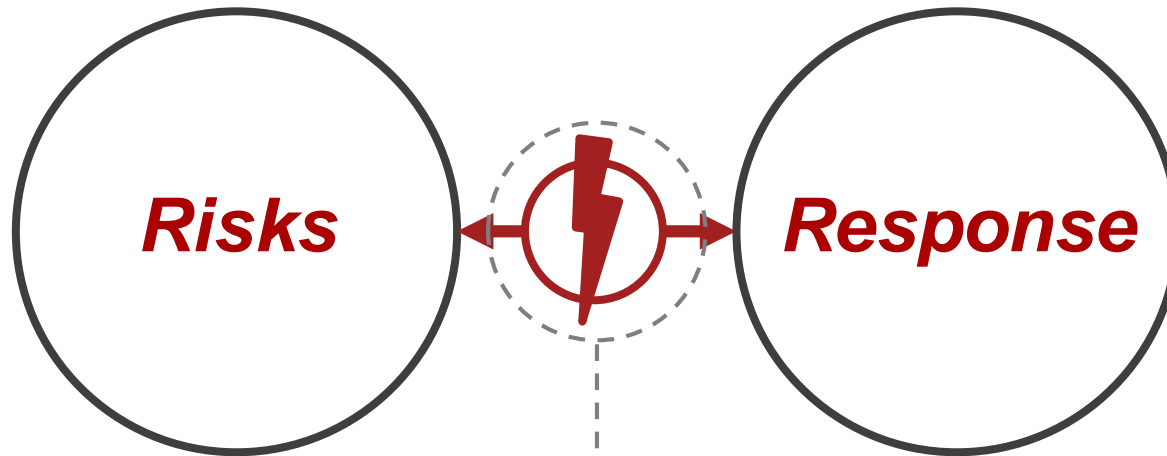
Force Design and the CLC



- Force Design function sits in the Strategy and Concepts Phase.
- Staff assess the force, relying on feedback throughout each phase.
- In particular, through the identification / capture of capability gaps and opportunities (G&Os) by the Capability Managers (CMs).
- G&Os are analysed and prioritised by Force Design, CMs and VCDF, and are used to inform the annual Innovation Hub priorities.

Force Design: Responding to Risk

Over time, as our plans evolve, our capabilities age, and our risks change, we need to adjust our response



***Over
time...***

...the risks and threats that face Australia change, and so does our tolerance for risk

... and our plans, resources and opportunities shift and change.



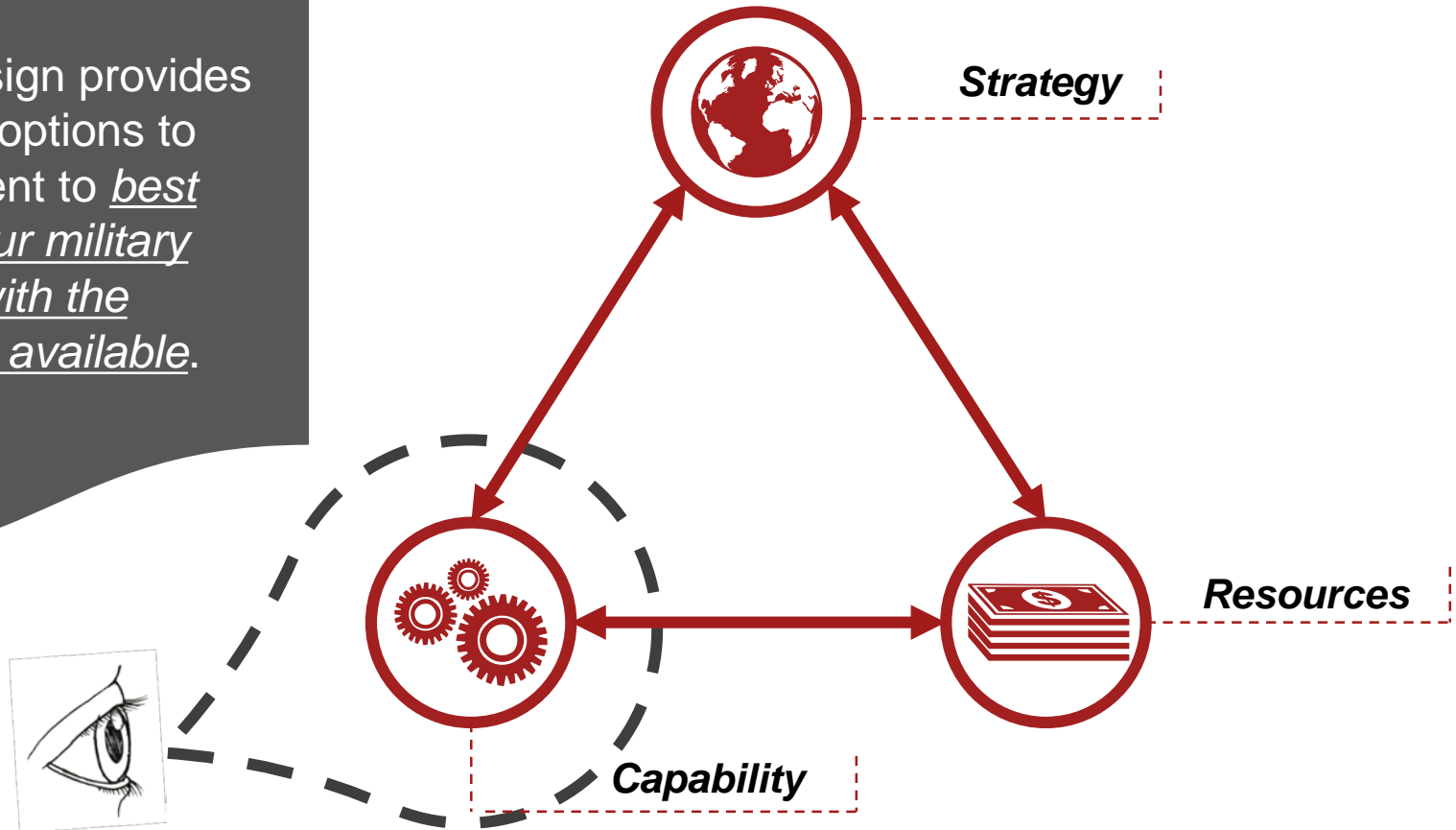
***Which
means...***

... our response doesn't bear the same relation to our risks that it used to.

Strategy, Capability and Resources

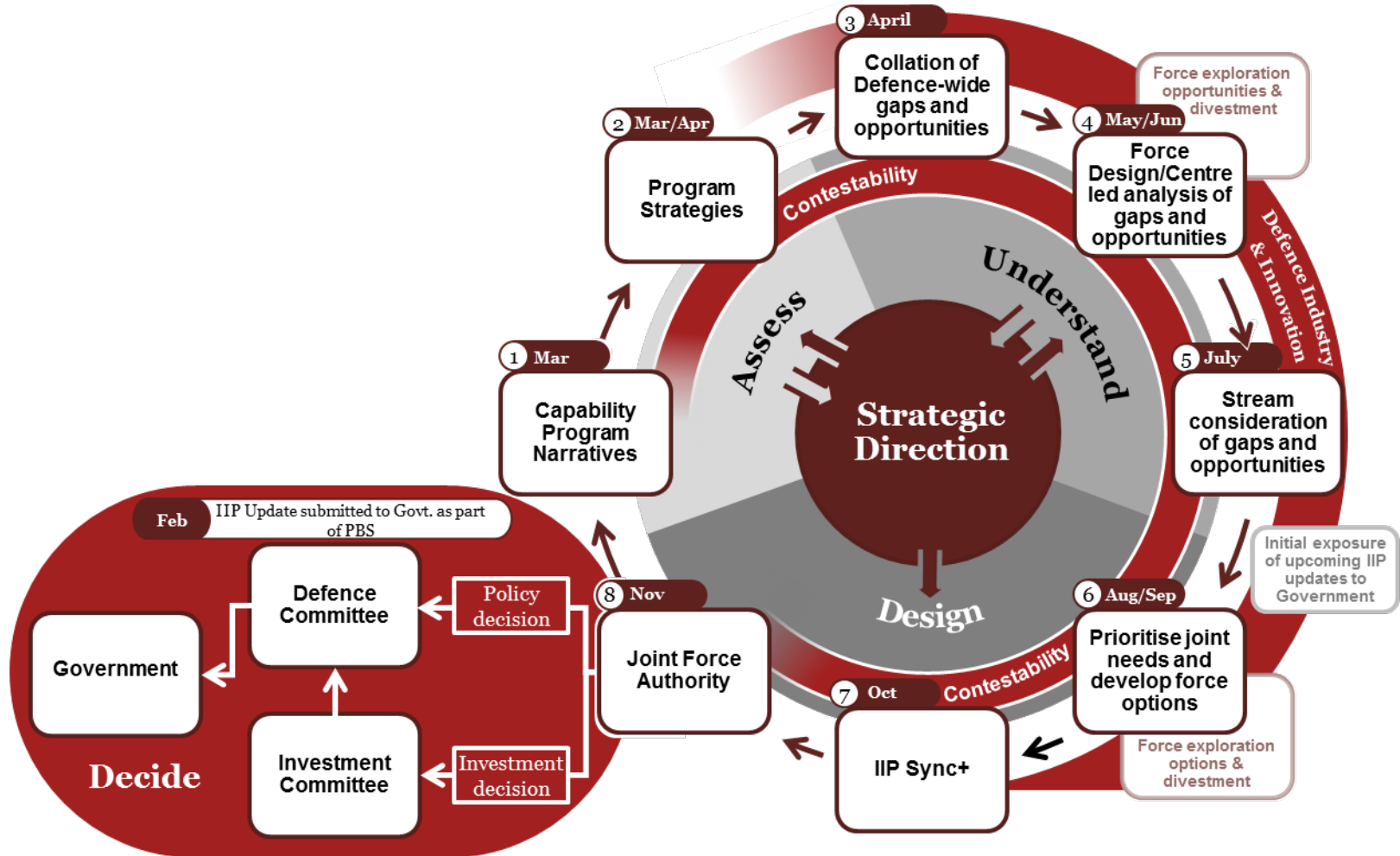
We provide a capability lens to the relationship between our capabilities, strategy, & resources...

Force Design provides capability options to Government to best achieve our military strategy with the resources available.



Defence Capability Assessment Program

The Defence Capability Assessment Program (DCAP) is the plan of activities to deliver the Force Design Cycle



Force Exploration

Force Exploration co-ordinates, and is responsible for the analysis of unbounded 'blue sky' G&Os



Force Exploration

Purpose:

The purpose of Force Exploration is to explore and formulate an understanding of unbounded and/or 'blue sky' G&Os.

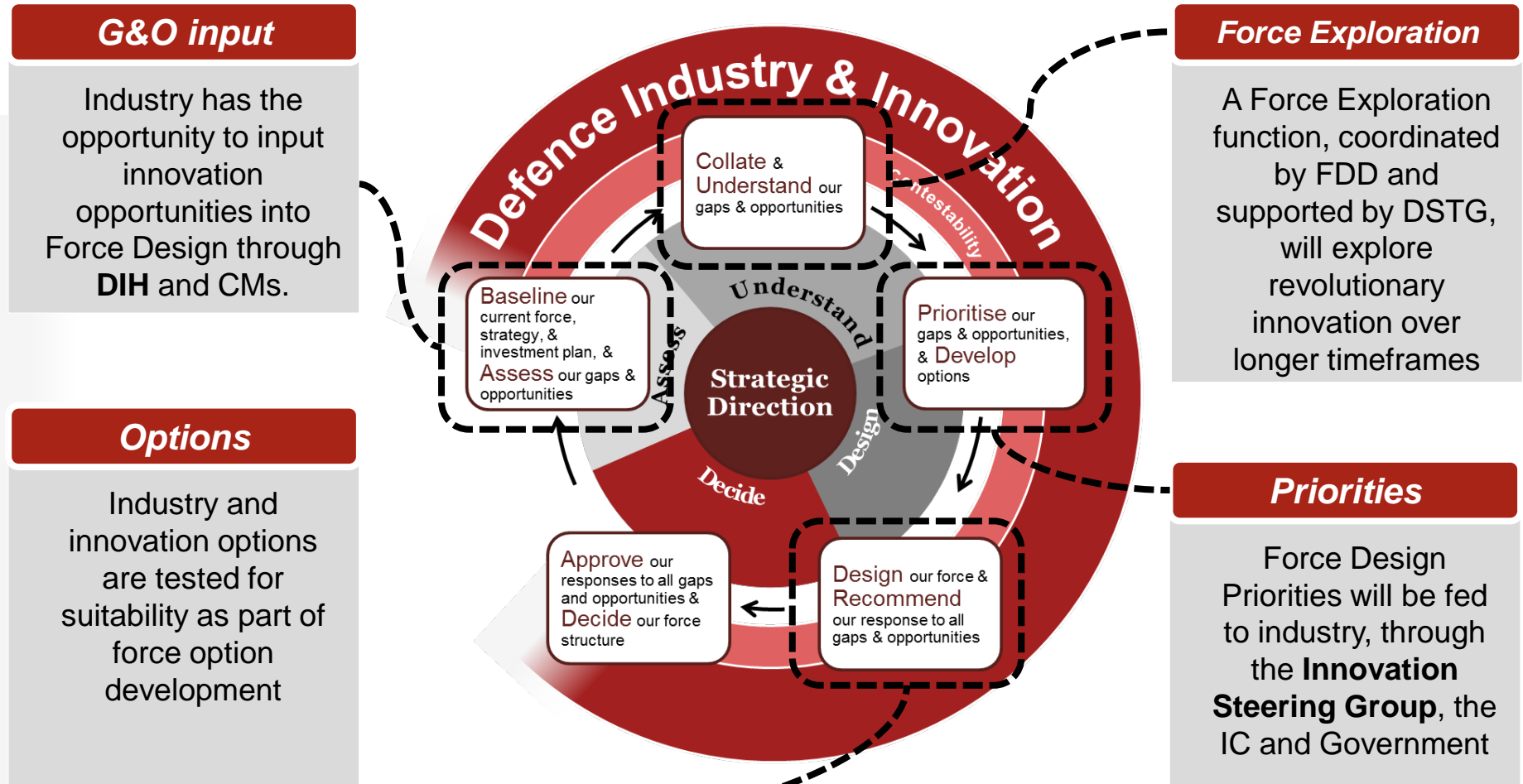
Key process notes:

1. G&Os that are deeply unbounded and/or beyond the scope of the Defence Streams - i.e. science and technology based - are allocated (by Force Structure Assessments) to Force Exploration for further research and analysis.
2. DST Group will be responsible for reviewing G&Os submitted to Force Exploration and allocating them to the most appropriate analysis owner for exploration (e.g. allocation to EDTAS, DST Group, Industry, Academia etc.).
3. Once G&Os have been allocated to analysis owners, Force Options Development will be responsible for monitoring analysis activities and generating progress reports.
4. Force Options Development will receive force options from analysis owners and evaluate them to ensure they meet output requirements

Note: Where extensive analysis activities are required, the outputs from such activities may be submitted to Force Options Development as part of a later DCAP cycle.

Industry, Academia and Innovation

Force Design Division engages internally, and with Industry and Academia throughout the cycle



ISREW, Space and Cyber

- Continued focus on:
 - ISREW enabling Joint Decision Support
 - Cyber
 - Joint Integration Effects
- Addition of:
 - Automated Dynamic Use of Spectrum Monitoring and Switching
 - Proximity Electronic Support / Electronic Attack (including development of EW Open Architectures)
 - Artificial Intelligence

Key Enablers

- Removal of:
 - Autonomous Identification Technologies
- Addition of:
 - Quantum Technologies
 - IT Automation
 - Machine Learning / Cognitive Computing
 - Cloud Adoption
 - Alternative Navigation and Positioning
 - Rapid Manufacture

Land Combat and Amphibious Warfare and Special Operations

- Continued focus on:
 - Potential Special Operations capabilities
- Addition of:
 - Enhanced Human Performance
 - Robotics and Autonomous Systems

Future Areas of Interest

- Data (and volume) management
 - Processing, Exploitation and Dissemination
- SATCOM and other Beyond Line of Sight capabilities
- Additive manufacturing (3D printing)
- ADF lift capabilities

Opportunities & Challenges

- Earlier engagement with industry and academia
 - Force Design / Innovation Hub Special Notice
- Cooperation / collaboration, remaining solution agnostic



Thank You

