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# **Australian Naval Procurement Cycles: Lessons for Other Small Countries**

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# Why focus on Australian shipbuilding and repair?

- “The jewel in the defence industry crown”
  - naval vessels the only major platforms built in Australia
  - shipbuilders the highest profile element of domestic defence industry
- Legacy of domestic warship building and maintenance capabilities
  - island continent with a small population and history of sea-borne migration and trade
  - shipbuilding peaked during WWII: over 100 warships built and over 5,000 naval repairs completed
- Procurement of naval vessels and the disposition of shipbuilding facilities highly politicised
  - competing interests of different states, services and industries
  - high profile ‘troubled projects’ (eg, Collins Class submarines)
  - focus of defence industry and procurement reforms since 1980s
- Broader implications for defence procurement and industry policies
- Lessons for other small countries

# Small country perspective

- Planned expenditure of Aus\$30.5 billion (2006 prices) on naval construction and sustainment 2006-2025 (c. US\$27.5 billion)
- 63% of that to be spent in-country (less on construction and more on sustainment)
  - 2008-2037, US Navy plans to spend on construction alone US\$25 billion a year (2009 prices), nearly all in-country
- 4 local shipbuilders (2 multinational, 2 Australian)
- Further consolidation expected
- Small number of shipbuilding and maintenance facilities with legacy of separation between construction and maintenance
- Mostly foreign OEMs and combat system integrators
- A large number of small local sub-contractors
- Limited exports, focus on import substitution

# Shipbuilding cycles

## Three post-war warship building cycles

- 1950s and 1960s (destroyers, patrol boats and support ships)

late 1960s – early 1980s: no naval combatants built in-country

- mid 1980s – late 2000s (frigates, submarines, minehunters and support ships)
- late 2000s – late 2010s (AWDs, LHDs, support vessels)

fourth cycle to begin after 2018

# First cycle: The troubled years

- Government-owned shipyards
  - ‘central planning’ approach to shipyard management
  - sheltered workshop culture
  - overcapacity
  - industrial disputes
  - cost reimbursement contracts
- Local content preferences
  - ill-fated local designs
  - large cost premia for in-country construction
- Poor outcomes
  - poor quality
  - cost overruns
  - schedule slippages

# Lean years: Import-based approach

- No warships build for twenty years after the first cycle
- Switch to imports (design and construction)
- In-country activity limited to
  - non-combatant vessel construction
  - some refit work
  - mostly repair work
- Poor outcomes
  - insufficient capacity to contract and manage imports
    - poor FFG deal under FMS
    - inability to manage variations in acquisition scope and technological change
    - non-enforceable (out-of-contract) offsets arrangements
  - inadequate local industry base to support fleet in wartime

# Second cycle: Local revival

- Shipyard reforms
  - corporatisation (ADI) and privatisation (Tenix) of shipyards
  - improved industrial relations
- Procurement reforms
  - specialisation: Defence Acquisition Organisation (ADO)
  - accountability: Defence Materiel Organisation (DMO) (prescribed agency)
  - risk management through fixed price contracts
  - core competencies: project management
- Local content preferences
  - high local content targets (construction) but offsets phased out
  - imported designs and combat systems
  - moderate cost premia for in-country construction (regional preferences)
  - self-reliance in fleet sustainment in wartime

# Second cycle: Local revival

- Rhetoric of market competition
- Standard procurement model: one size fits all
- Outcomes: mixed bag
  - good (performance-cost-schedule) outcomes for conventional warships (frigates, minehunters, patrol boats)
  - the troubled Collins Class submarine project (complex system integration, contract mgt, risk mgt)
  - shipbuilding: new 'legacy industry'



# Third cycle: Sustainment

- Shipbuilders
  - growing foreign ownership (Thales/ADI) (BAE Systems/Tenix)
  - government-owned common use facilities (complementary resources)
- Procurement reforms
  - Kinnaird Review: capability focus and British-style (two-pass) government approval system
  - DMO: synergies in capability formation and sustainment
    - partnering arrangements with prime contractors
    - contractual arrangements with 'service customers'
  - core competencies: *complex* project management
  - tailoring acquisition models to projects
  - incentive contracts with focus on synergistic relationship mgt
  - new procurement model for mega projects
    - alliance-based target incentive model
    - the overall coordination vested in DMO

# Third cycle: Sustainment

- Local content preferences
  - moderate local content targets (construction and system integration)
  - *proven* imported designs and combat systems
  - cost premia for in-country construction (regional preferences)
- Less competitive rhetoric
  - ‘locally-fronted’ competition for new prime and OEM contracts (reasonable for-the-market competition)
  - little scope for in-project switching of prime contractors and OEMs (minimal in-the-market competition)
  - but reasonable for- and in-the-market competition upstream in the supply chain
- Construction contracts evolving into collaborative sustainment arrangements (Collins Class, ANZACs)

# First cycle: Procurement model



**Prime Relationship** command-style, adversarial

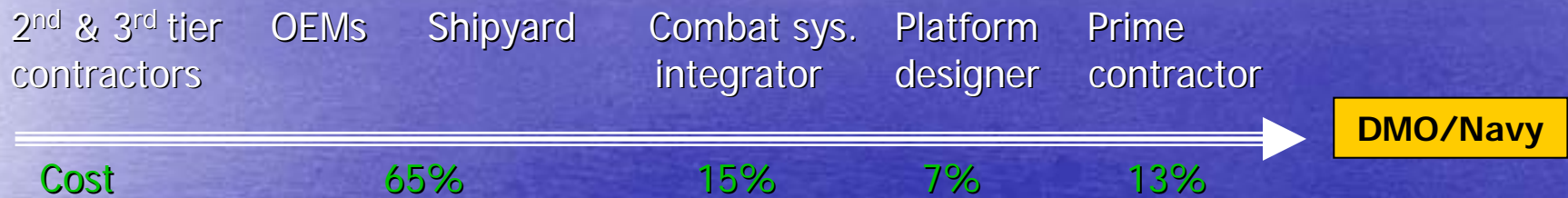
**Prime Deal**

deliverable indigenous design  
price cost reimbursement  
schedule slack

**Prime Contract**

not enforceable

# Second cycle: Standard procurement model



**Prime Contract** detailed, fixed price, variations

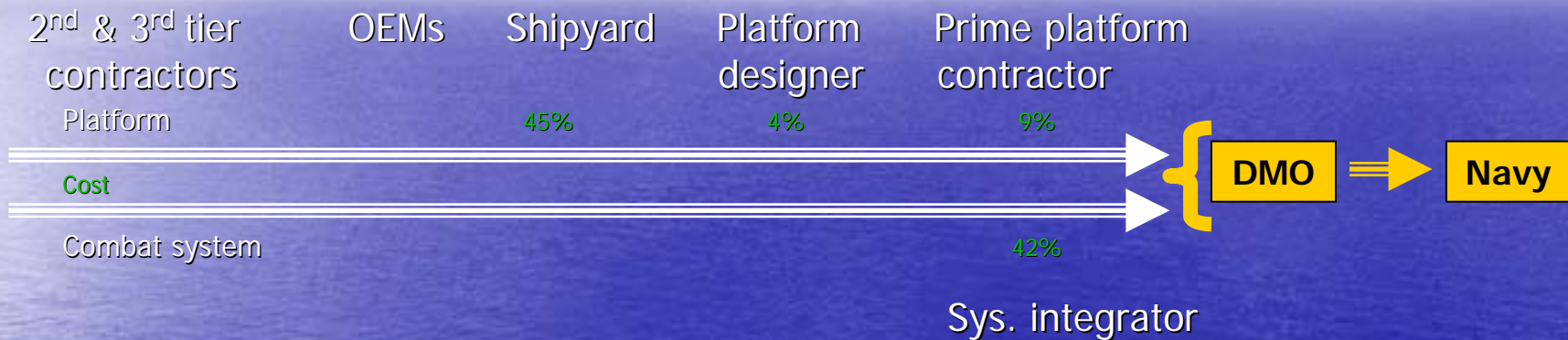
**Prime Deal**

deliverable Australianised design  
price fixed  
schedule tight

**Prime Relationship**

distant

# Third cycle: Complex procurement model



**Prime Relationship** synergistic prime alliance

**Prime Deal**

deliverable imported design  
 price productivity growth incentives  
 schedule tight

**Prime Contract**

prime alliance-based target  
 incentive agreement

# Lessons for small countries

- Local demand
  - monopsonistic local buyer
  - small, lumpy, often capricious and difficult to smooth
  - prone to idiosyncratic (tailored) product specifications and requirements creep
  - complex pork barreling
    - regional interests and legacy industries
    - shifts focus to platforms away from knowledge-intensive systems
- Export markets
  - hard to penetrate (marketing impediments and high transaction costs)
  - local content/offsets demands favour FDI and factor mobility
  - depend on government facilitation (product endorsement, international workshare arrangements)

# Lessons for small countries

- Supply
  - barriers to entry: asset specificity and capital intensity
  - globalisation: multinational system integrators and OEMs
  - idiosyncratic product specifications provide a degree of protection for in-country suppliers
  - not enough in-the-market competition to sustain leanness and productivity growth (bilateral monopolies)
- Defence procurement and industry policies to
  - induce public investment in common use facilities and quasi-vertical integration to enhance for- and in-the-market competition (lower entry and exit barriers)
  - reduce hold up risks (the art of 'smart' monopsony)
    - tailor procurement models and incentive contracts to projects
    - mitigate risks of complex/mega acquisitions through risk-sharing arrangements with primes and OEMs