



Defence Procurement Policies

National and International Perspectives: Defence Acquisition

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(Retd)**

31 Mar 2022

Friday

1400 to 1600h

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Agenda

- Why is there a Defence Acquisition System?
- Defence Acquisition Models, Evolution and Process
 - USA
- Evolution of Indian Defence Acquisition Process
- Inferences

DYNAMIC INTERNATIONAL SYSTEMS





“I have three visions for India”



*My **first vision** is that of **freedom**. I believe that India got its first vision in 1857.*

*My **second vision** for India is **development**. It is time we see ourselves as a developed nation, self reliant and self assured.*

*I have a **third vision**. That India must stand up to the world. **Only strength respects strength.**”*



Why is there a Defence Acquisition System?

- Defence Acquisition has unique aspects :
 - supplier constraints,
 - technological complexity,
 - foreign suppliers,
 - high cost,
 - foreign exchange implications and
 - geo-political ramifications,
 - not a standard open market commercial form of procurement.
- Highest standards of transparency, probity and public accountability, balance between competing requirements such as expeditious procurement, high quality standards and appropriate costs need to be established.



Why is there a Defence Acquisition System? (Contd..)

- Need to manage Nation's investments in technology , programs and products that meet National Security Strategy
- Decision making pertaining to defence acquisition remains distinctive and complex.
- Every Nation has evolved systems appropriate to its purpose.



USA: Evolution of Acquisition System

- Acquisition System and processes of US DoD are most complex and comprehensive amongst all developed nations.
- Evolved over six decades since its inception in early sixties
- US Department of Defense established in 1947
- Loose confederation of military departments, Secretary of Defense was limited to providing general direction to those departments .
- 1950s: Individual services ran their own acquisition programs with very little involvement from office of Secretary of Defense (OSD), each service buying weapon systems suitable for kind of conflict it envisioned.



USA: Evolution of Acquisition System (contd..)

- Higher military budgets, resulting from increased international role of US following Korean War, presented with two fold challenge:
 - Efficient management of first peacetime defence industry in US history, and
 - Effective co-ordination of military R&D efforts.

Refer: “Defence Acquisition Reform, 1960 – 2009” – An Elusive Goal, By J Ronald Fox and David J Acker



USA: Evolution of Acquisition System (contd..)

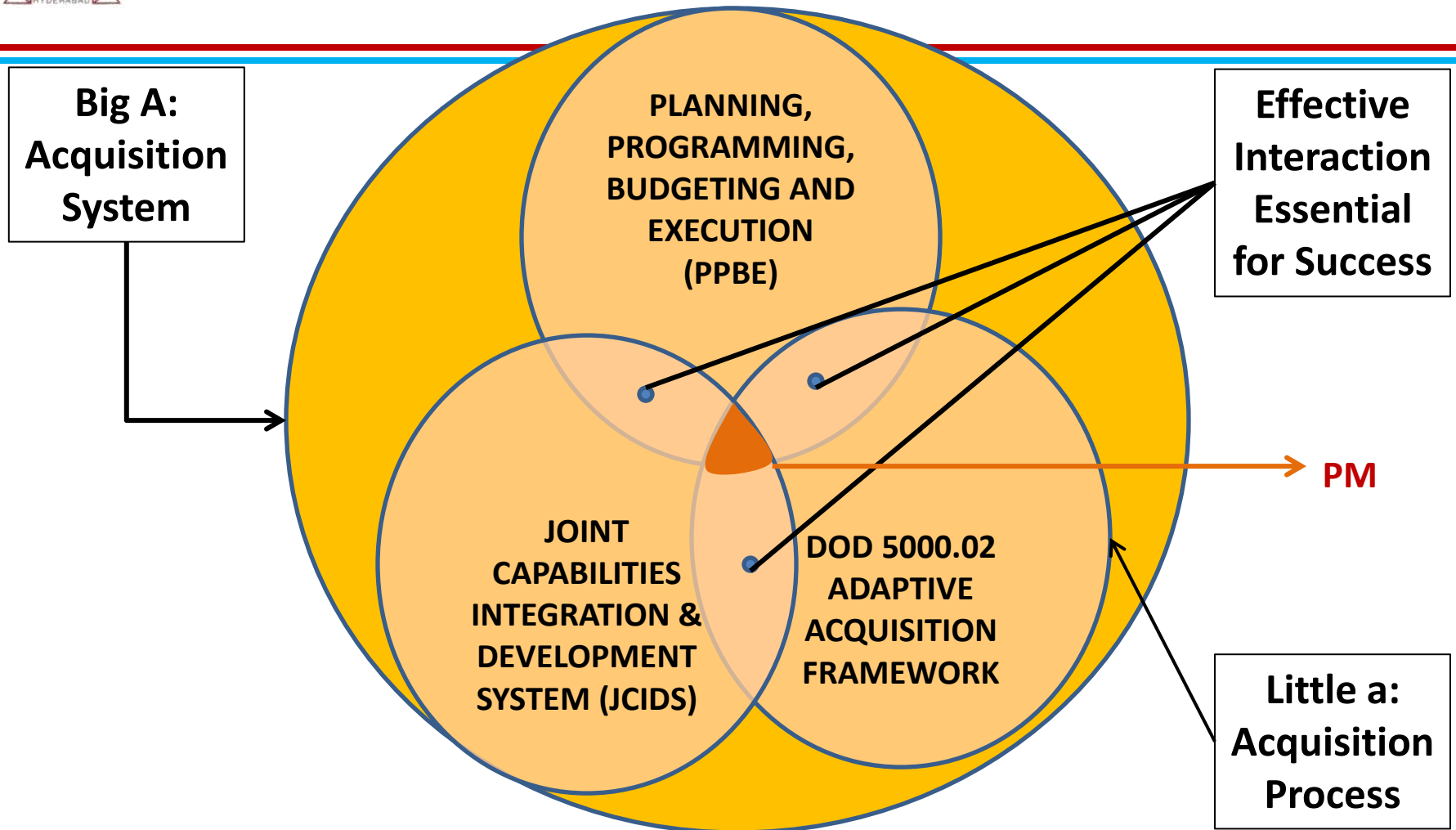
- US DoD Defense acquisition System, as it exists presently, has come into being through
 - Over 27 major studies of defense acquisition have been commissioned by Presidents, Congress, Secretaries of Defense, Government agencies etc.
 - Each of those studies attempted to address same core issues – efficiency and effectiveness of defense acquisition system.



US DoD Acquisition System

- US DoD acquires goods and services from contractors, federal arsenals and shipyards to support military operations
- Acquisition : Broad term applied to more than just purchase of item or service. Encompasses
 - design,
 - engineering,
 - manufacture,
 - testing,
 - deployment,
 - life cycle support, and
 - disposal

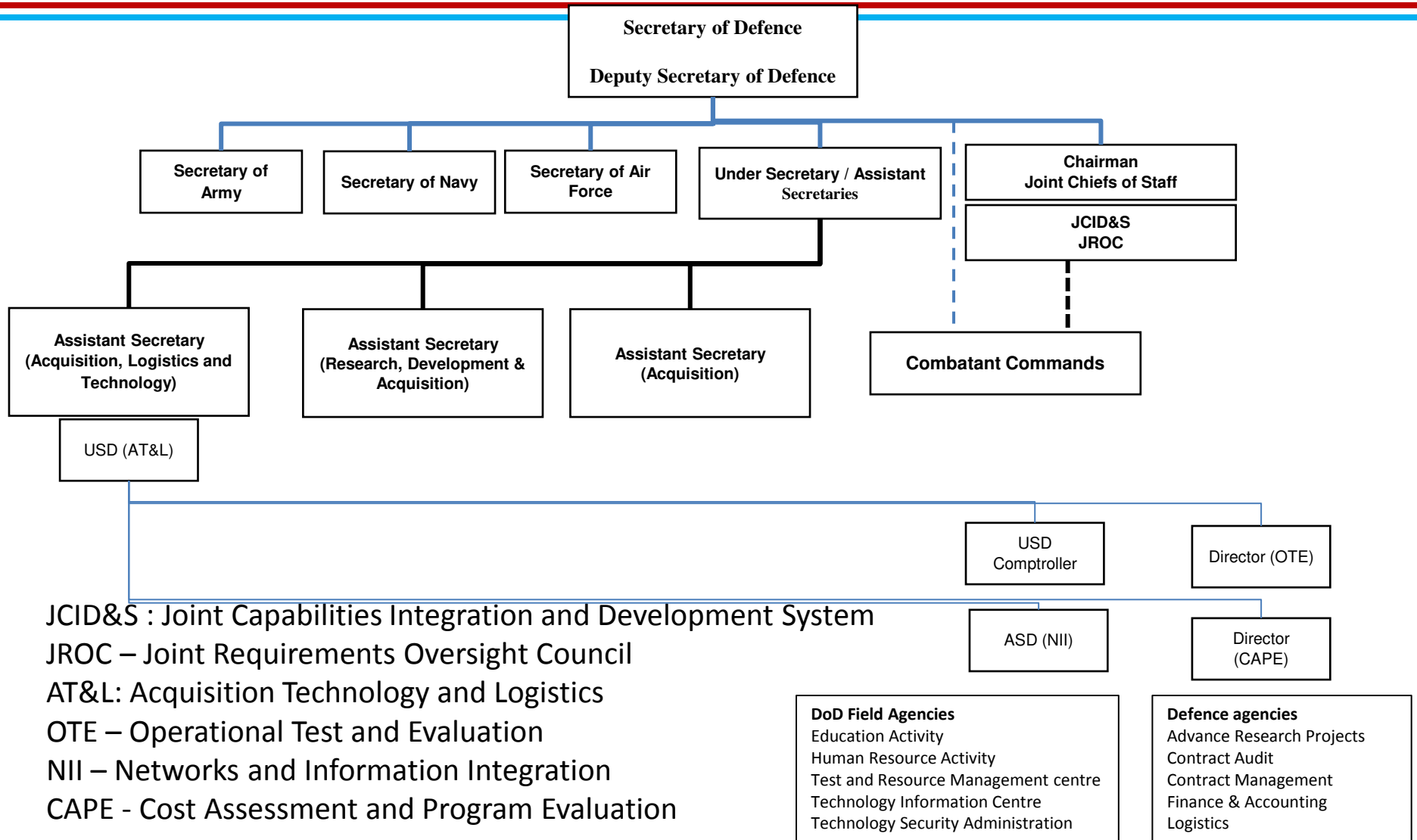
US: ACQUISITION SYSTEM



Source – Defence Acquisitions: How DoD Acquires Weapon Systems and Recent Efforts to Reform Process – By Moshe Schwartz



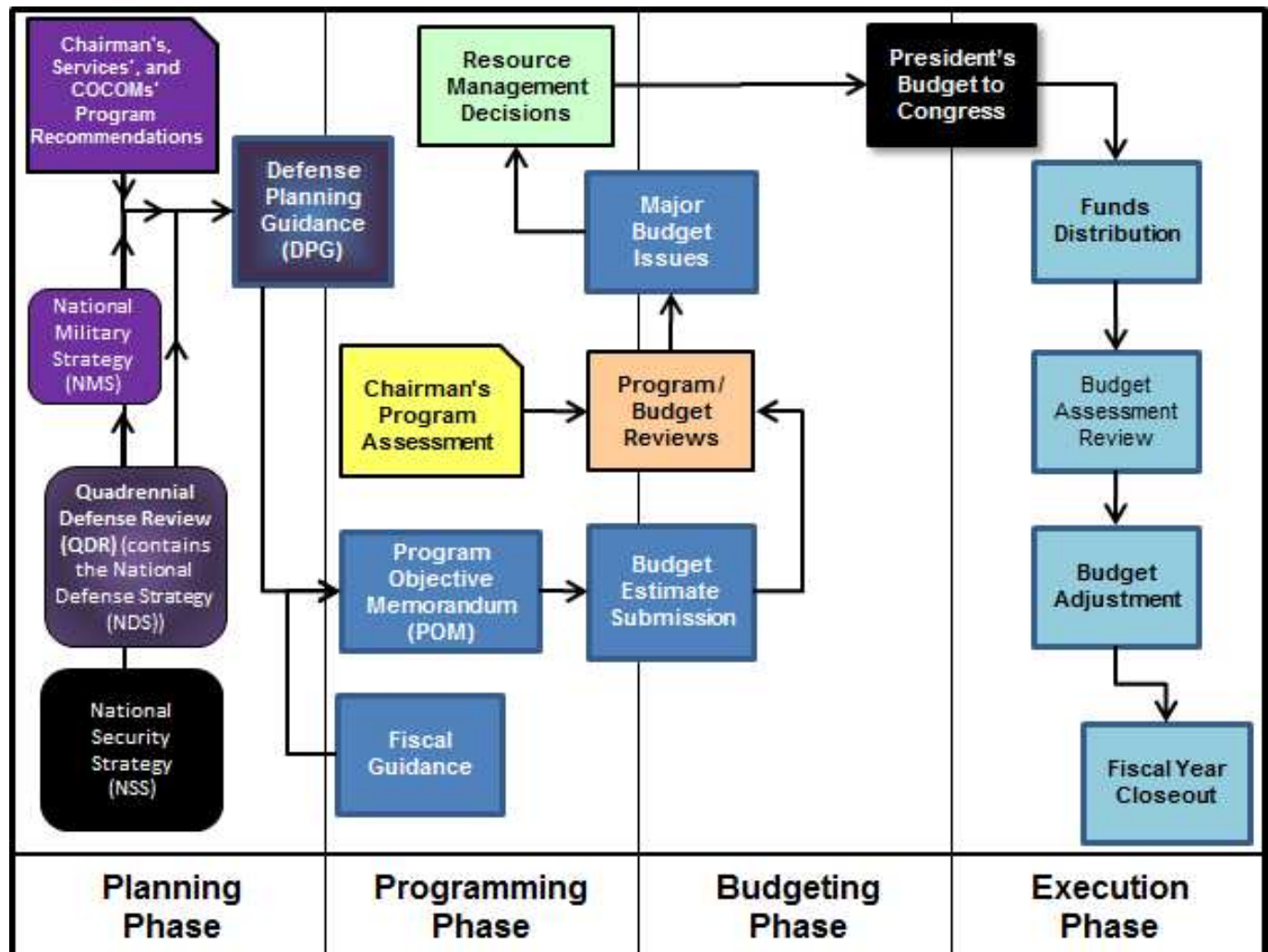
Defence Acquisition System Structure



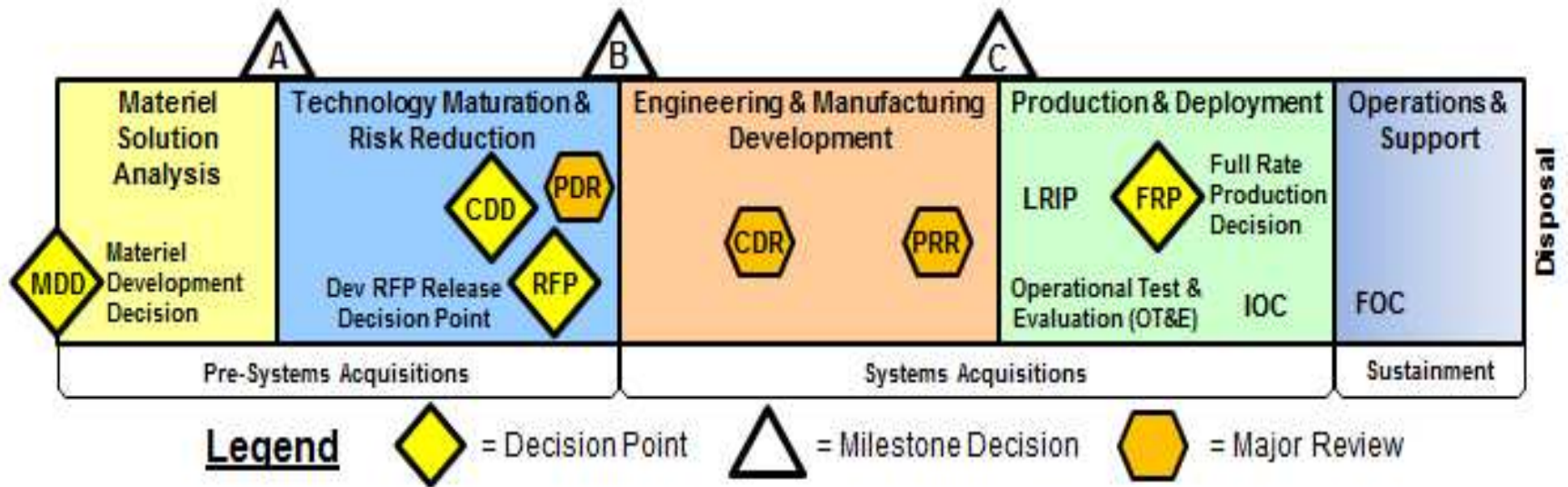


Planning, Programming, Budgeting and Execution (PPBE) System

COCOM –
Combatant
Command



“Little ‘a’” Processes and Functions



CDD: Capability Development Document

PDR: Production Development Review

CDR: Critical Design Review

PRR: Production Readiness Review

LRIP : Low-Rate Initial Production

IOC : Initial Operational Clearance

FOC : Full Operational Clearance

Urgent Capability Acquisition

Middle Tier : Rapid Prototyping

Major Capability Acquisition



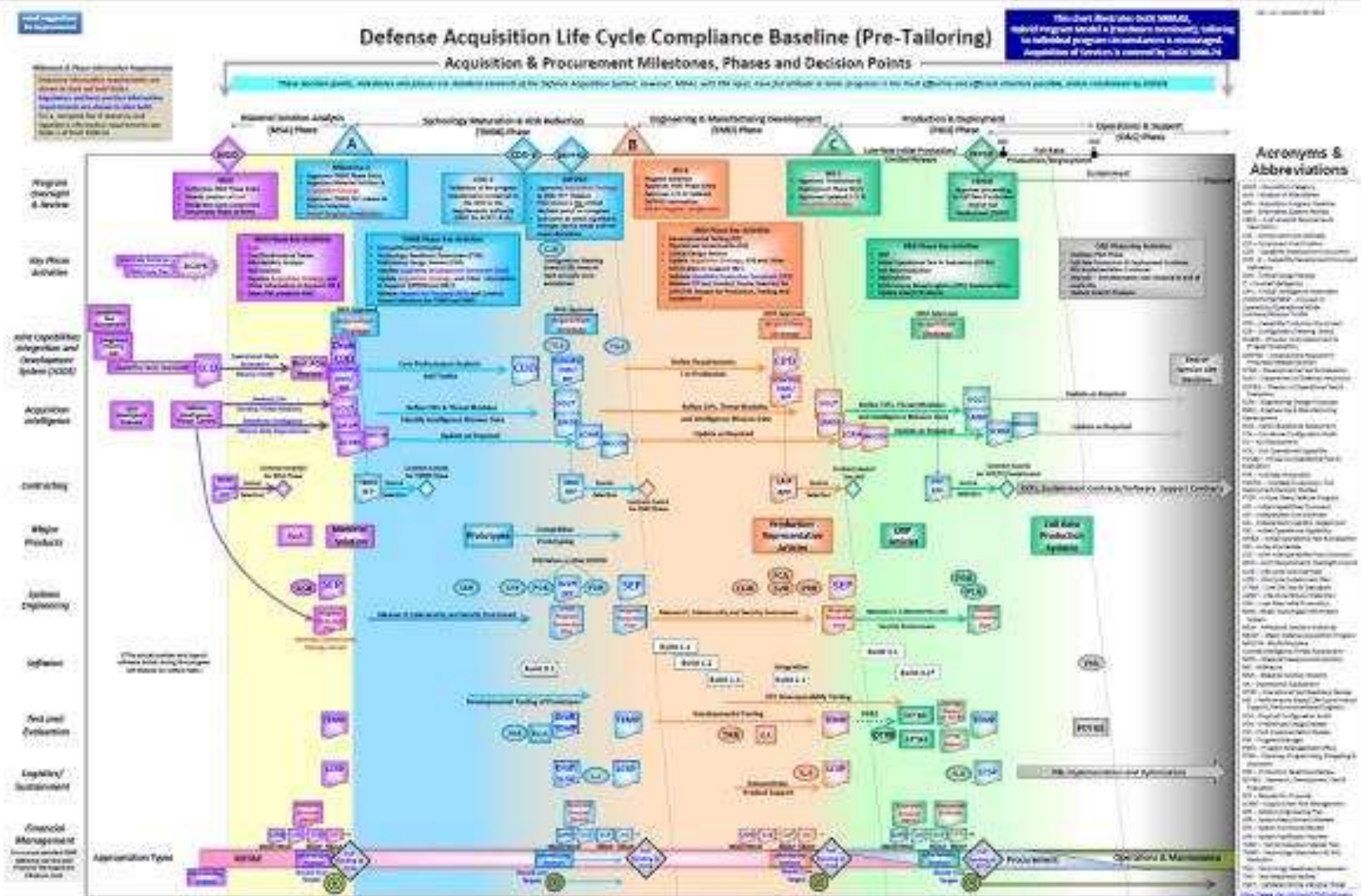
Acquisition Category (ACAT)

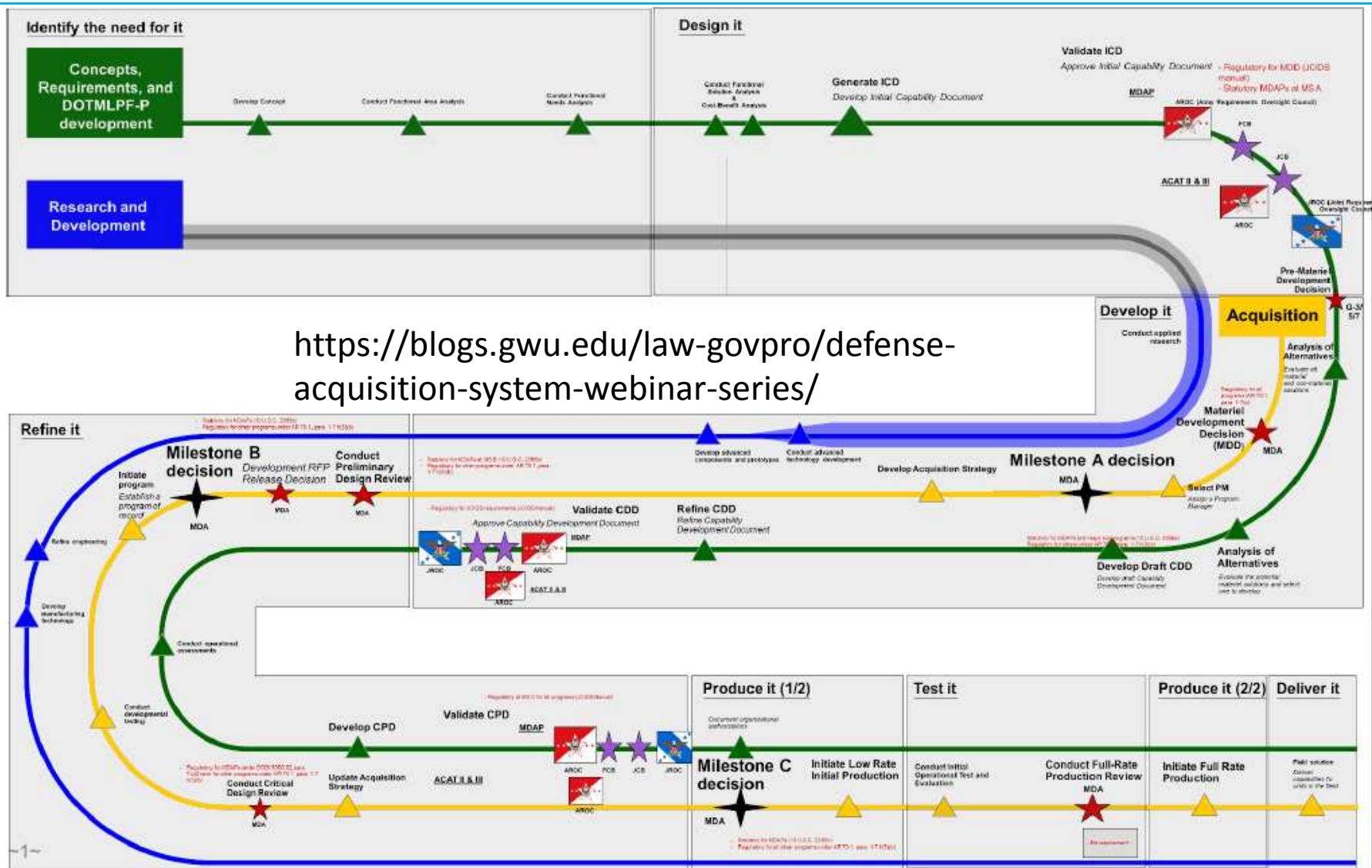
- Defense Acquisition System divides acquisition programs into Three (3) Acquisition Categories (ACAT):
 - ACAT I: Major Defense Acquisition Program (MDAP) expenditure over \$525 Million for development and \$ 3.065 Billion for production
 - ACAT II: Does not meet criteria for ACAT I, expenditure over \$200 Million for development and \$ 920 Million for production
 - ACAT III: ACAT III programs are defined as those acquisition programs that do not meet ACAT I or II criteria

Difference between each categories dependent on location of a program in Acquisition Process, funding amount for Research, Development, Test and Evaluation (RDT&E), total procurement cost, Milestone Decision Authority (MDA).



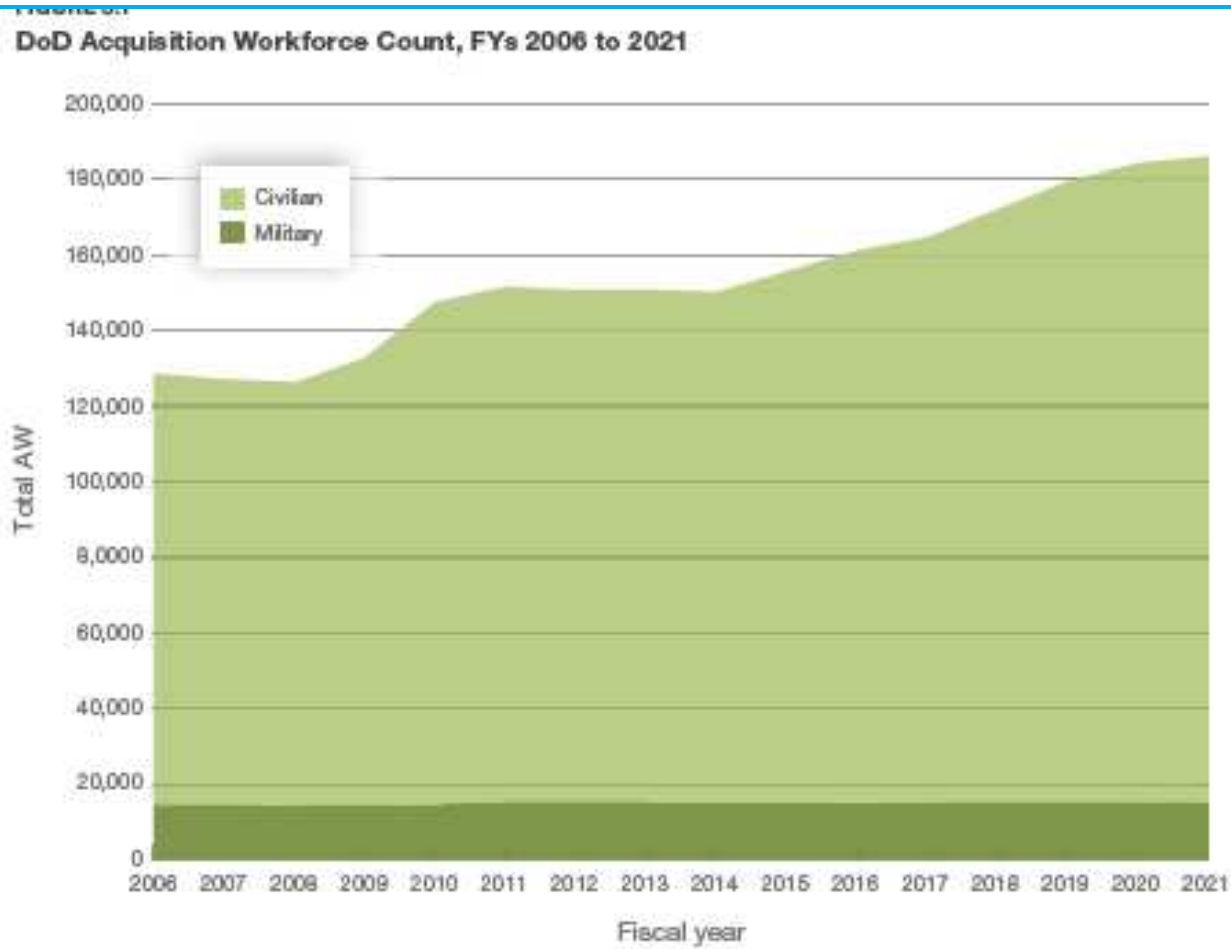
Acquisition Lifecycle Wall Chart







Acquisition Workforce



RAND: Department of Defence Acquisition Workforce Analysis: Updated through Fiscal 2021

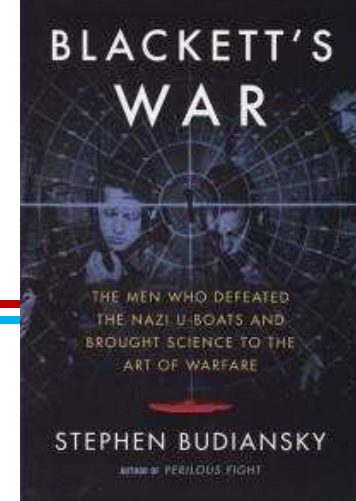


USA: Defence Acquisition: Summary

- Detailed Process
- Integrated Effort
- Workforce trained in DAU
- Supports US strategy of maintaining Technological Superiority
- Criticised for delays
- Involvement in Afghanistan has triggered changes for rapid development and fielding



DEFENCE ACQUISITION PROCESS: INDIA



- Prof P M S Blackett
 - Two phased production strategy, short term to meet local adversaries, and long term for more sophisticated arms to counter a stronger adversary
 - Aimed at building limited manufacturing capability, urging India to rely more on diplomatic efforts.

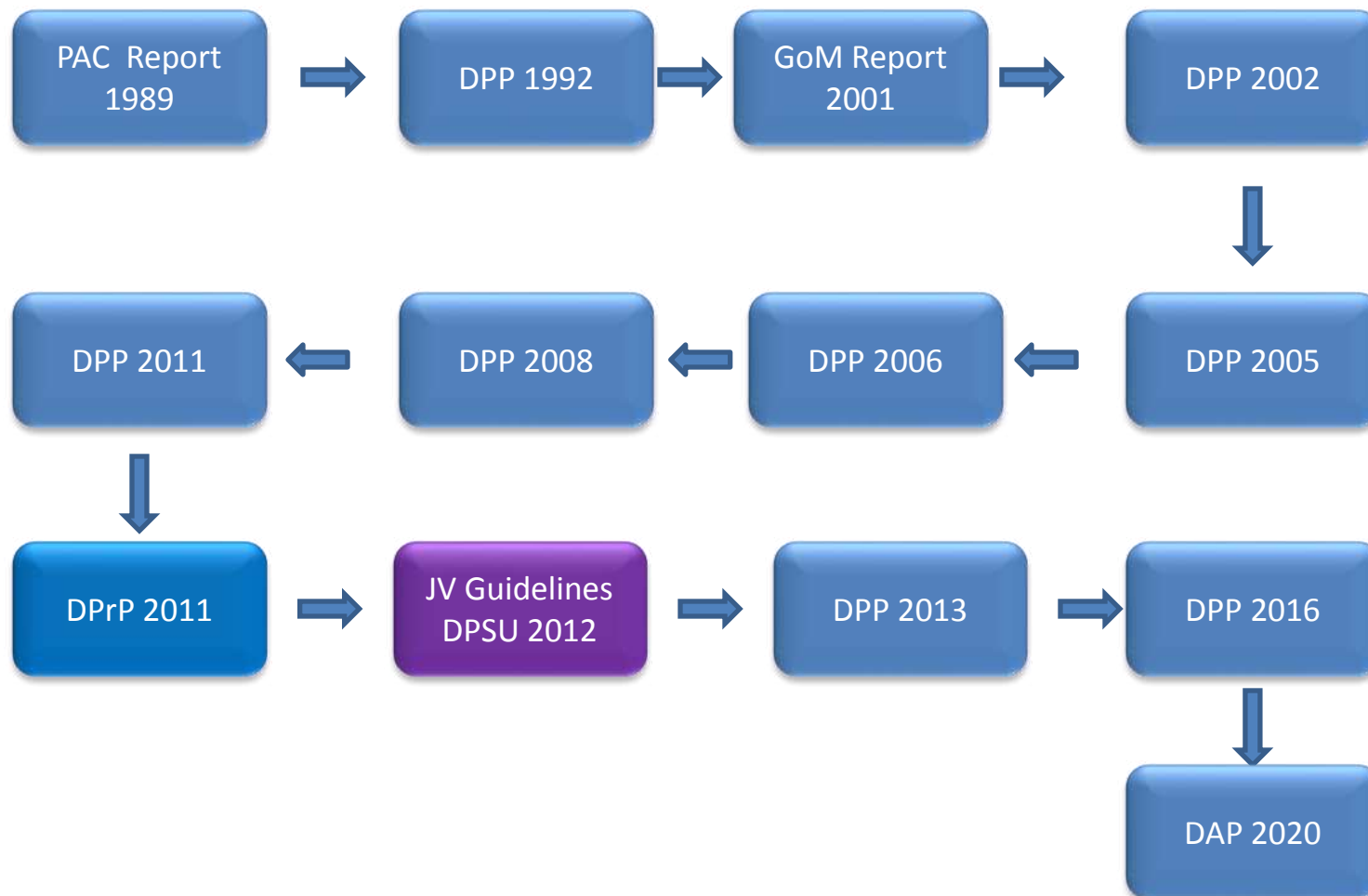
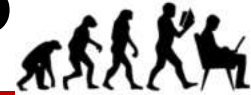
Patrick Blackett in India: Military Consultant and Scientific Intervenor, 1947-72 by Robert S. Anderson



Phases of Defence Industry development in India

- 1st Phase
 - up to the early 90's: Public sector partnership with one major supplier
 - technology transfer modeled on Soviet practices
- 2nd Phase
 - early 90's to present times.
 - Russian inventory diversified with technology from Israel, France, the United States, Britain, South Africa and Italy.
 - Dominance of Public Sector continued, private sector granted license, No major weapon platforms.
- 3rd Phase
 - 'Make in India'.
 - Modernisation is not merely induction of new types of equipment, but a mix of strategy and security perceptions and optimum use of hardware to achieve stated national objectives.
 - All the capabilities of the state are brought to bear on the issue including the private sector industrial base.
 - Strategic Partnership and Development Partners.
- 4th Phase
 - Need for reliable Supply Chains
 - Atmanirbharta in Defence

Evolution of DPP/ DAP



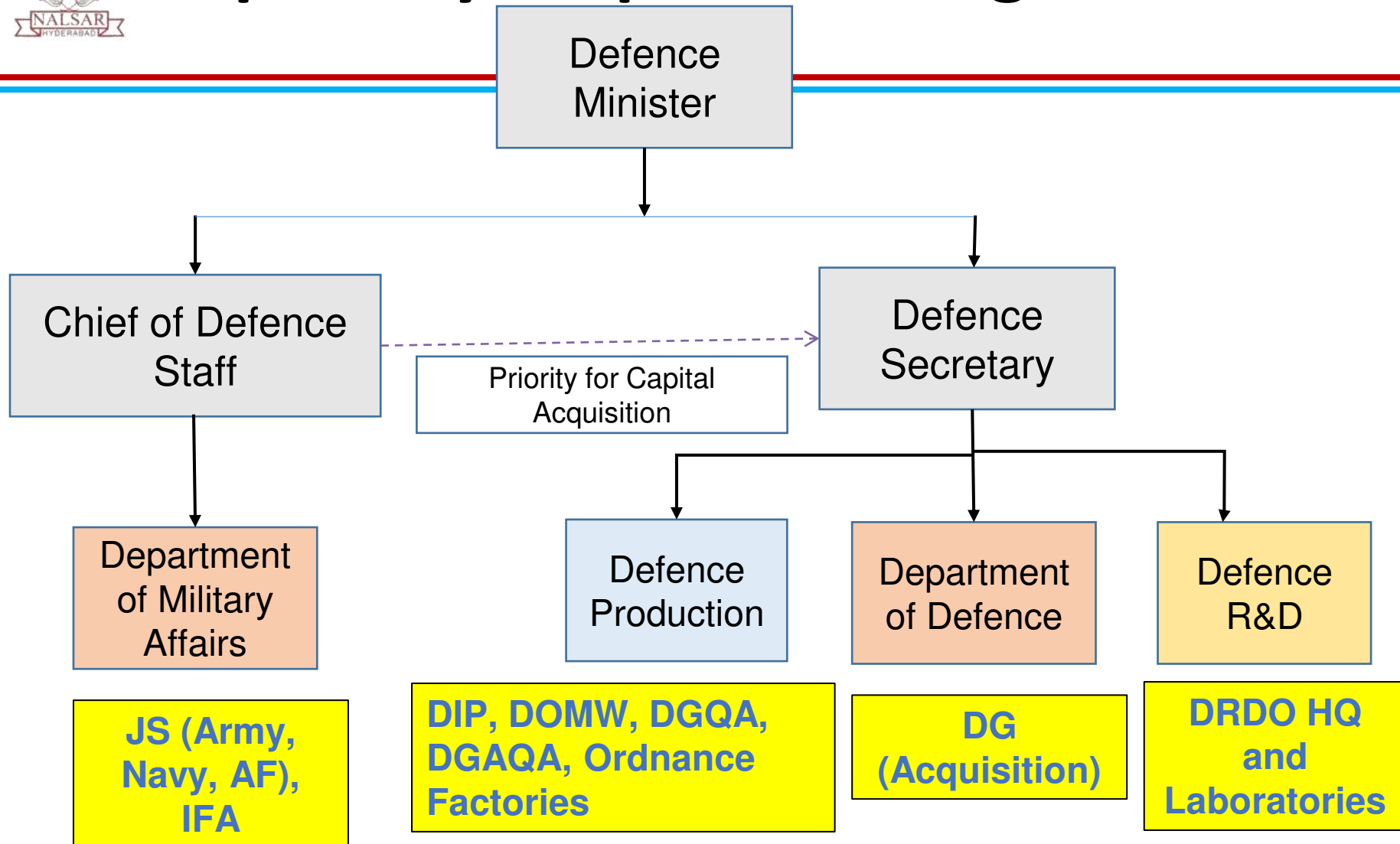


India: Capability Acquisition Process - Planning

- 10 Year ICDP: Integrated Capability Development Plan
- 5 Year DCAP: Defence Capital Acquisition Plan
- 2 Year AAP : Annual Acquisition Plan



Capability Acquisition Organisation

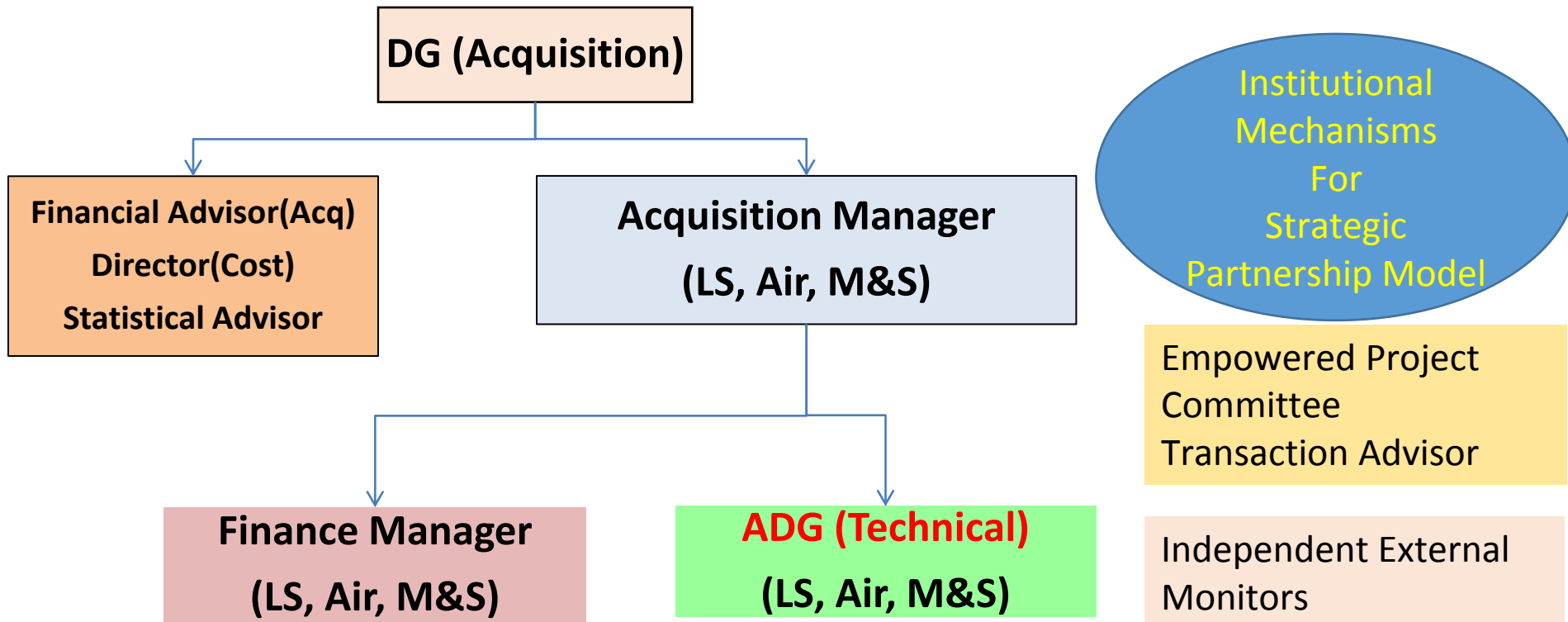


DIP: Defence Industries Production

DOMW: Defence Offset Management Wing

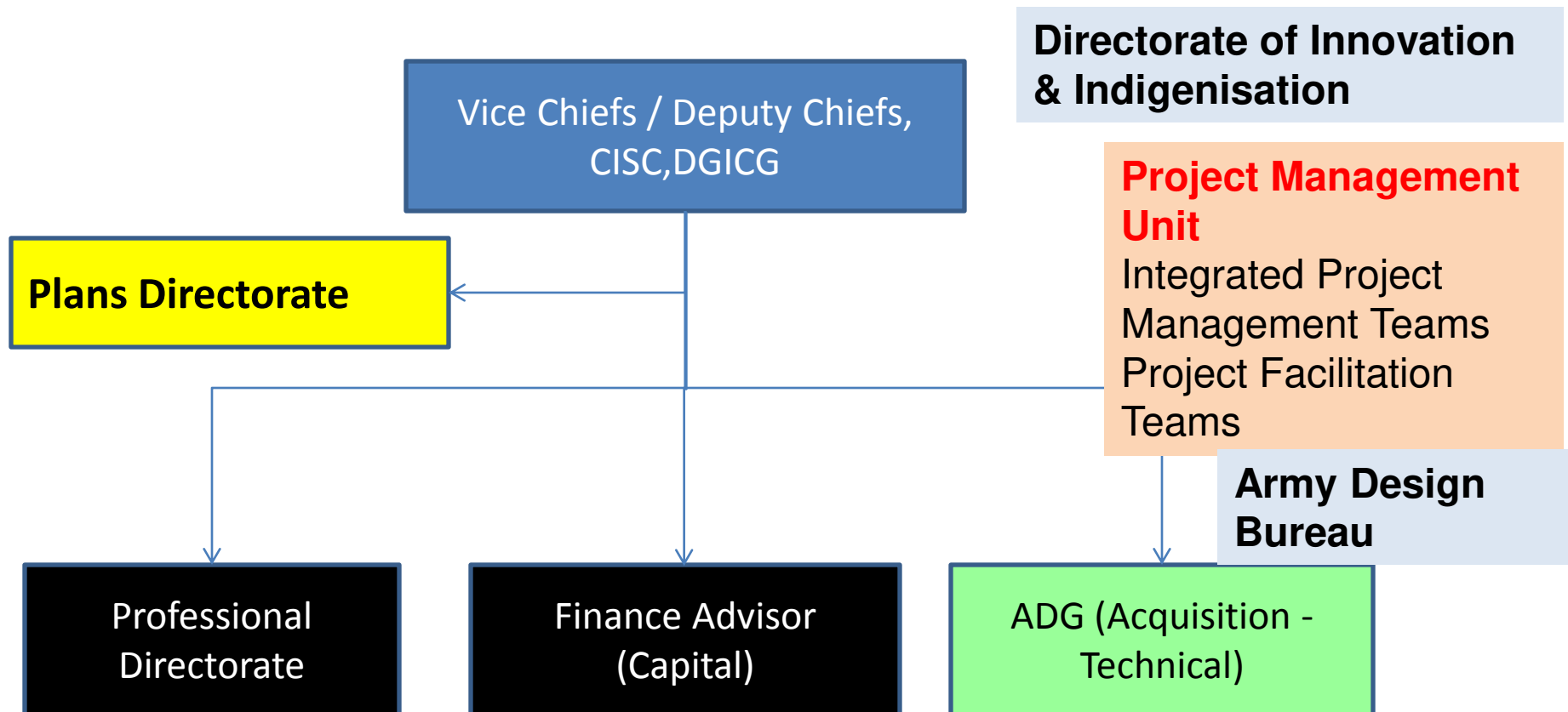


Defence Acquisition Organisation - Functional Hierarchy





Defence Acquisition Organisation Functional





Emerging Dynamics

- Pandemic has redefined globalisation
- Recent war, resultant sanctions have caused major rethink
- Move away from cheap Supply chains to Resilient Supply chains.

US driven Supply Chain Initiatives

- IPEF— Indo-Pacific Economic Framework for Prosperity.
 - connected economy (or trade)
 - supply chains
 - clean economy and
 - fair economy





Japan-India-Australia Cooperation on Resilient Supply chain

- Japan approved 8 Projects of which 6 from India
 - Establish master database of manufacturing components for digitisation of the drone manufacturing process.





PM's Gati Shakti – National Master Plan for Multimodal connectivity

- Logistics Cost to be comparable to Global benchmark by 2030
- Geo spatial Digital Platform for National Master Plan
- Whole of Government approach: Multiple Layers (more than 1900) of data integrated with Geo spatial information.
- Aerospace and Defence Corridor infrastructure are to be dovetailed into Gati Shakti



Inferences

- Defence Acquisition is a specialised task, only Government can guide and execute
- USA has evolved but intricate process
- Indian systems have started evolving from 1990
- New International Dynamics are redefining Acquisitions driven by Resilient Supply Chains



Interaction

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