**Office of the Secretary of Defense**

**Acquisition, Technology & Logistics**

**Defense Research & Engineering**
**Plans & Program Office**

# *Conceptual Framework*

# *for*

# *Military Capability Development*

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*Defense Capabilities Enterprise:*

# *Diversified Force Generation Roles, Diversified Force Employment Needs*

**Organize, Train & Equip**

**Operationally Employ**

*…and increasingly, complex operational partners: NGB, inter-agency, coalition, NGO*

# Combatant Commander Science &Technology Staff: Diversified Roles, Diversified Needs

## Variety of roles/titles

- Science &Techology (S&T) Advisor
- Research, Development, Test & Evaluation (RDT&E) Programs Liaison
- Concept Development Lead
- Capability Development Lead

## Variety of organizational structures

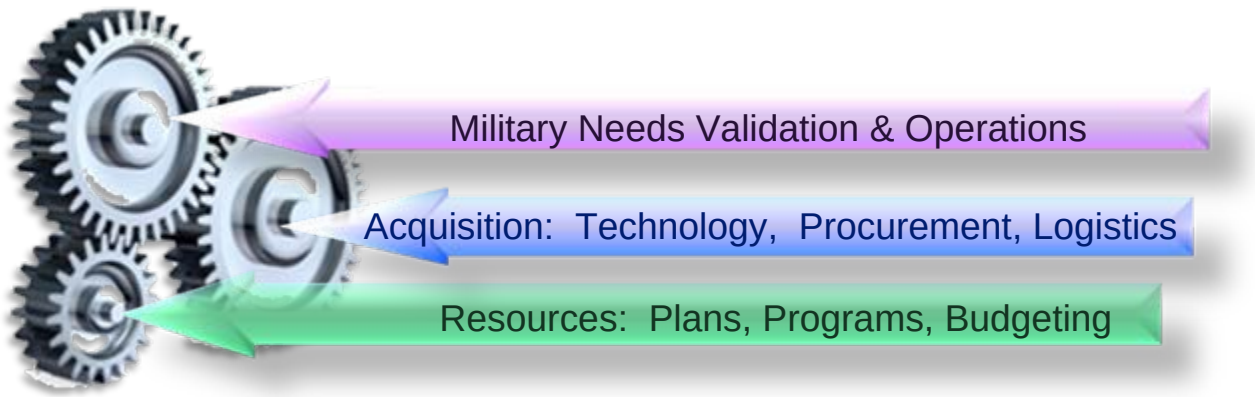
- Reporting to Deputy Commander, Chief of Staff, J8/Resources, J9/Experimentation
- Single/multiple science advisors on HQ staff

## Variety of resource support

- Executive agency Service / parent service support
- Experimentation support
- Working capital fund support
- Rapid reaction acquisition programs support
- Operational needs processes

# *Aligning the Domains: Defense Engine for Capabilities*

All three domains must be aligned & engaged to deliver capabilities




The challenge for Combatant Commanders:

- They exist in the authority domain of Military Needs & Operations
  - Joint force needs are predominantly expressed through CJCS
  - Only US Special Operations Command has force development acquisition authorities
- They rely on Services for preponderance of force capabilities
  - "Force Integration" / "Force Provider" services performed by USJFCOM
  - USJFCOM translates joint force needs into force fill requirements for Services
- They rely on Services for HQ resources through legacy Executive Agency provisions
- They have limited manpower to participate in needs, acquisition & funding processes

# Needs to Solutions: Processes & Roles

**PPBES:Program – Budget Process**

## Needs Process

1. Develop & specify needs
2. Review & comment on budget-based programming and acquisition solutions
3. Allocate resources to joint/combatant commanders

## Needs Roles

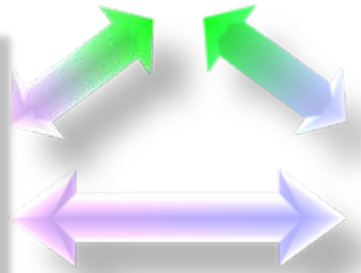
CJCS/JCS

CoComs – Including USJFCOM

Joint Staff

Military Staffs

CoCom/Component Cdr Staffs



## Acquisition Solutions Process

1. Consult with needs authorities in development of acqusition solutions
2. Acquire material solutions based on validated needs and budget-based programming
3. Deliver resources (acquisition products) for allocation to joint/combatant commanders

## Solution Roles

USD (AT&L)/DAE

Service Secretaries/SAEs

OSD (AT&L) Staff

Service Secretariat Staffs

Systems/Materiel Commands

Military Agencies

USSOCOM [special authorities]

# *Joint Capability Development Strategy – Framing Remedies*

## Identifying Military Requirements

Analyze capability gaps
- Lessons Learned / Warfighting Analyses

Characterize improvements: What is really required?
- Experiment…what DOTMLPF elements are needed?

Define in actionable terms
- Specify DOTMLPF elements or options

Understand DoD roles

Respect & leverage authorities

Needs⇨Requirements⇨Solutions

## Framing the Solution Set

Headquarters enhancement
- Engage Executive Agency (military Service)?

Specific Component Force Development
- Specify Service partnership / component roles

Joint Force Capability Gap
- Pursue Functional CoCom partnerships

Use diversity of tools

Employ gapfillers

Remain flexible

## Developing Specific Strategies

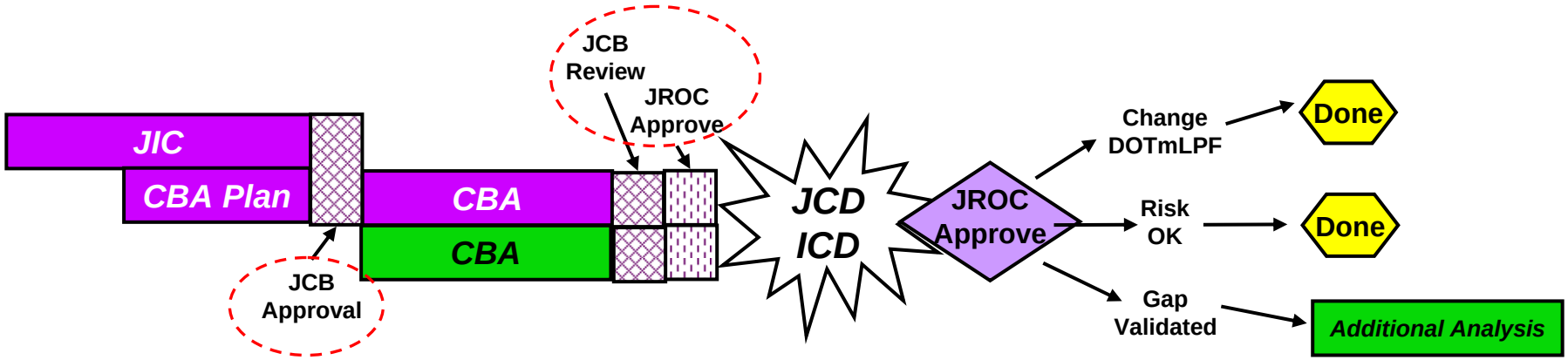
Address key gap-closing capability segments

Forge partnerships with strategy development
- Key element of resourcing & transition

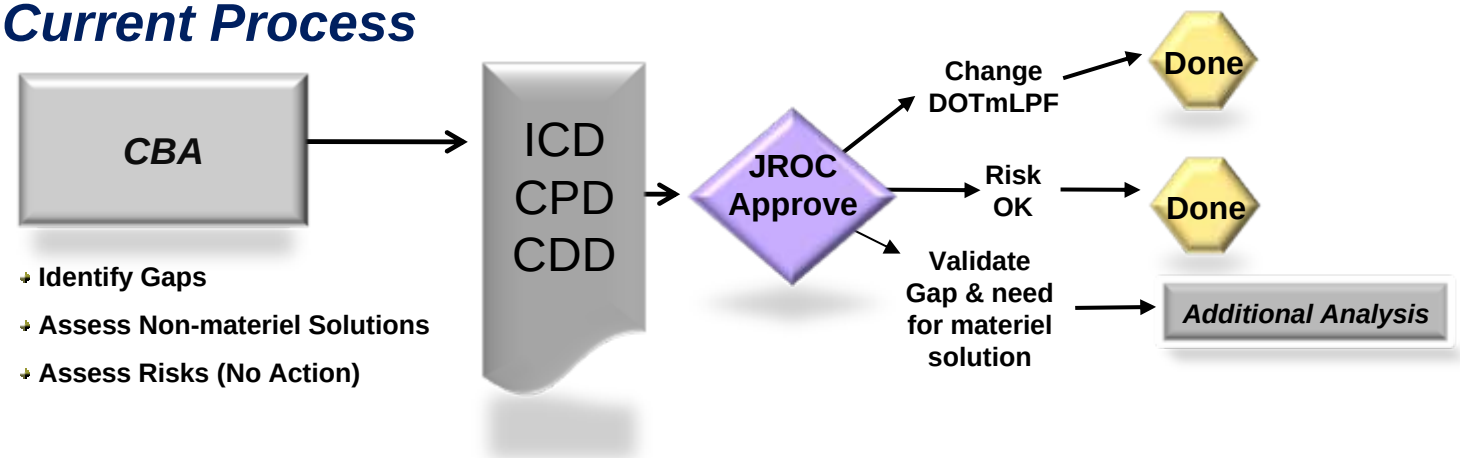
Stipulate timeline and phasing of deliverables
- Cite operational imperative for timelines

# Restructure Capabilities Based Analyses (CBAs)

## Former Process

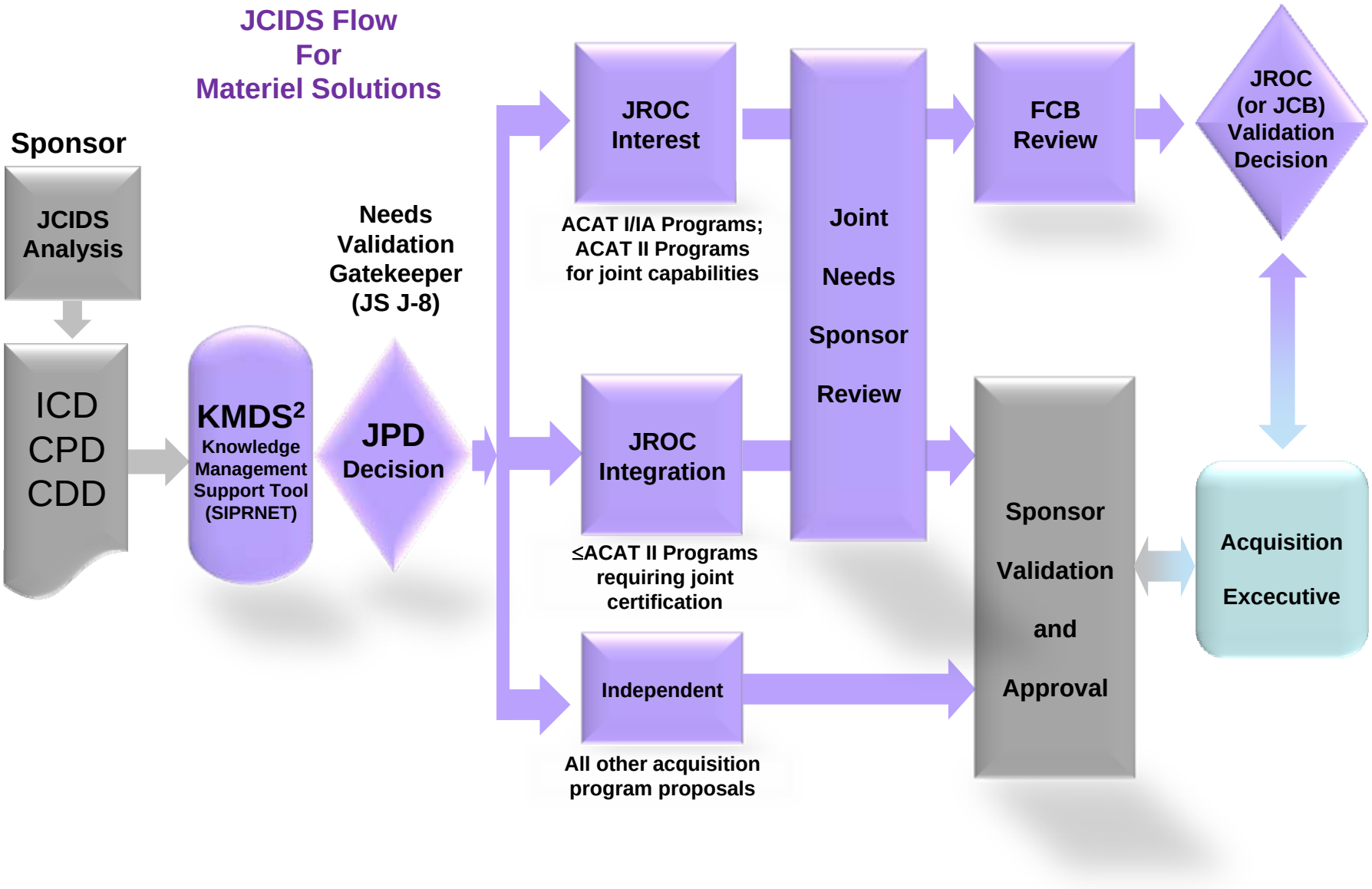



## Current Process

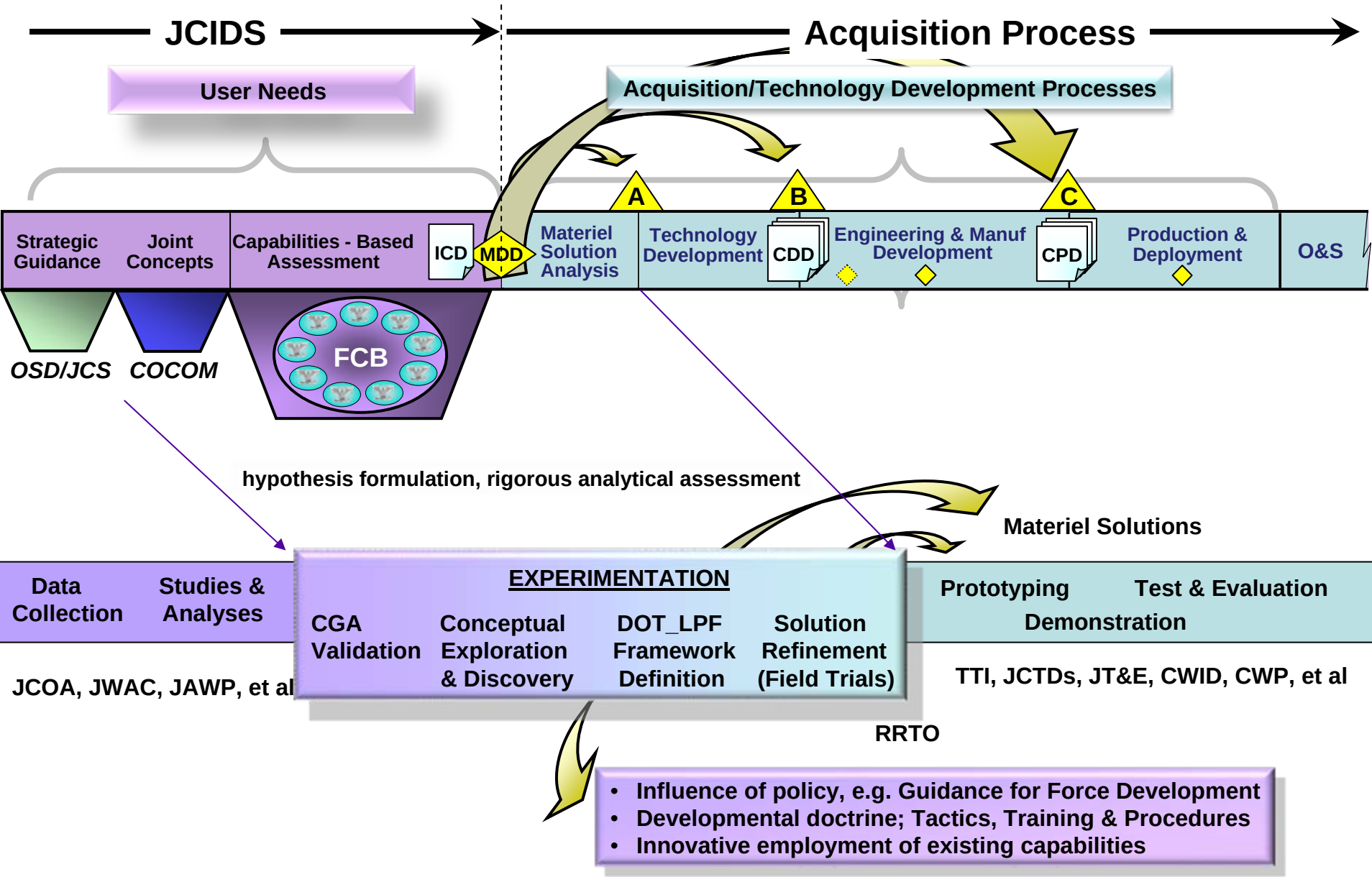



*Streamline analysis and focus JROC decisions*

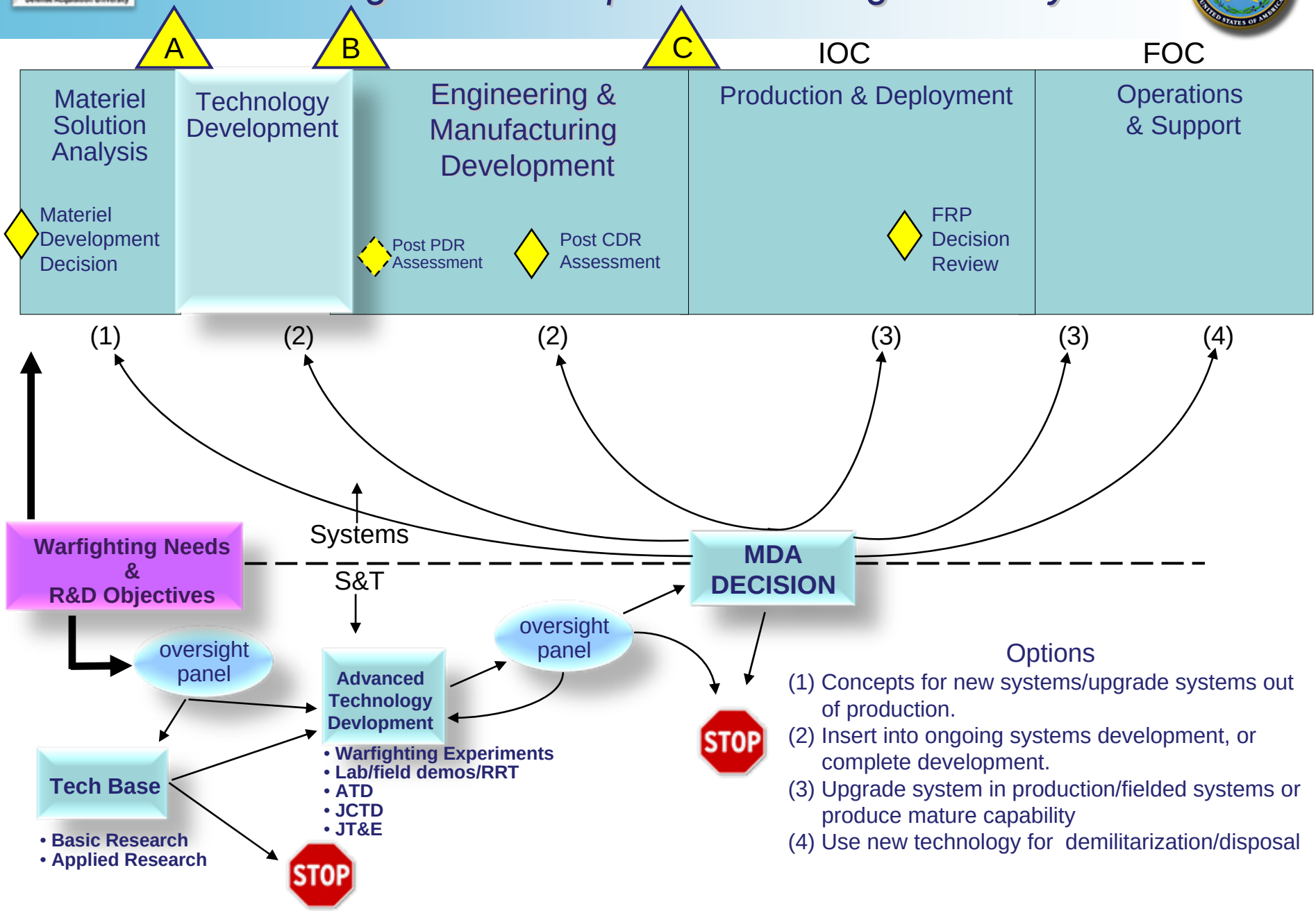
# *Military Needs/Operations Domain:*
# *JCIDS Joint Operational Needs Process Overview*



# Defining Defense Experimentation



# S&T Linkage to the Acquisition Management System




## Options

(1) Concepts for new systems/upgrade systems out of production.
(2) Insert into ongoing systems development, or complete development.
(3) Upgrade system in production/fielded systems or produce mature capability
(4) Use new technology for demilitarization/disposal

# Development Model for Acquisition Solutions

***Transition to Procurement & Sustainment***

- Joint Training

***Readiness & Suitability Confirmation***

- Test & Evaluation
- Military assessment of utility

***Functional Validation; Tailored Form/Fit/Function***

- DOTMLPF construct development and confirmation
- Demonstration

**Technical Concept Design & Development**

- Prototyping

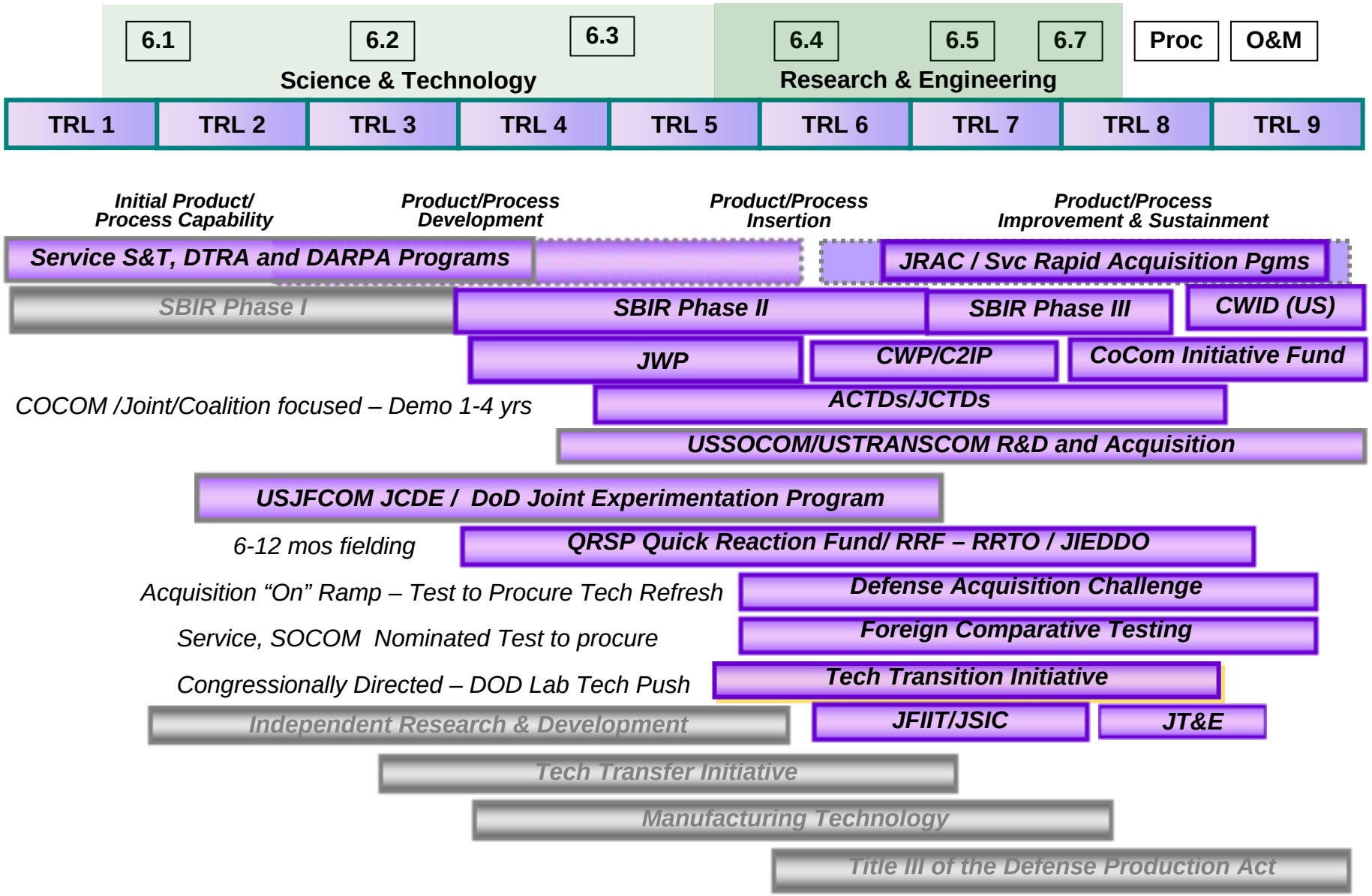
***Alternatives Development & Assessment***

- Experimentation
- Red Teaming Analysis

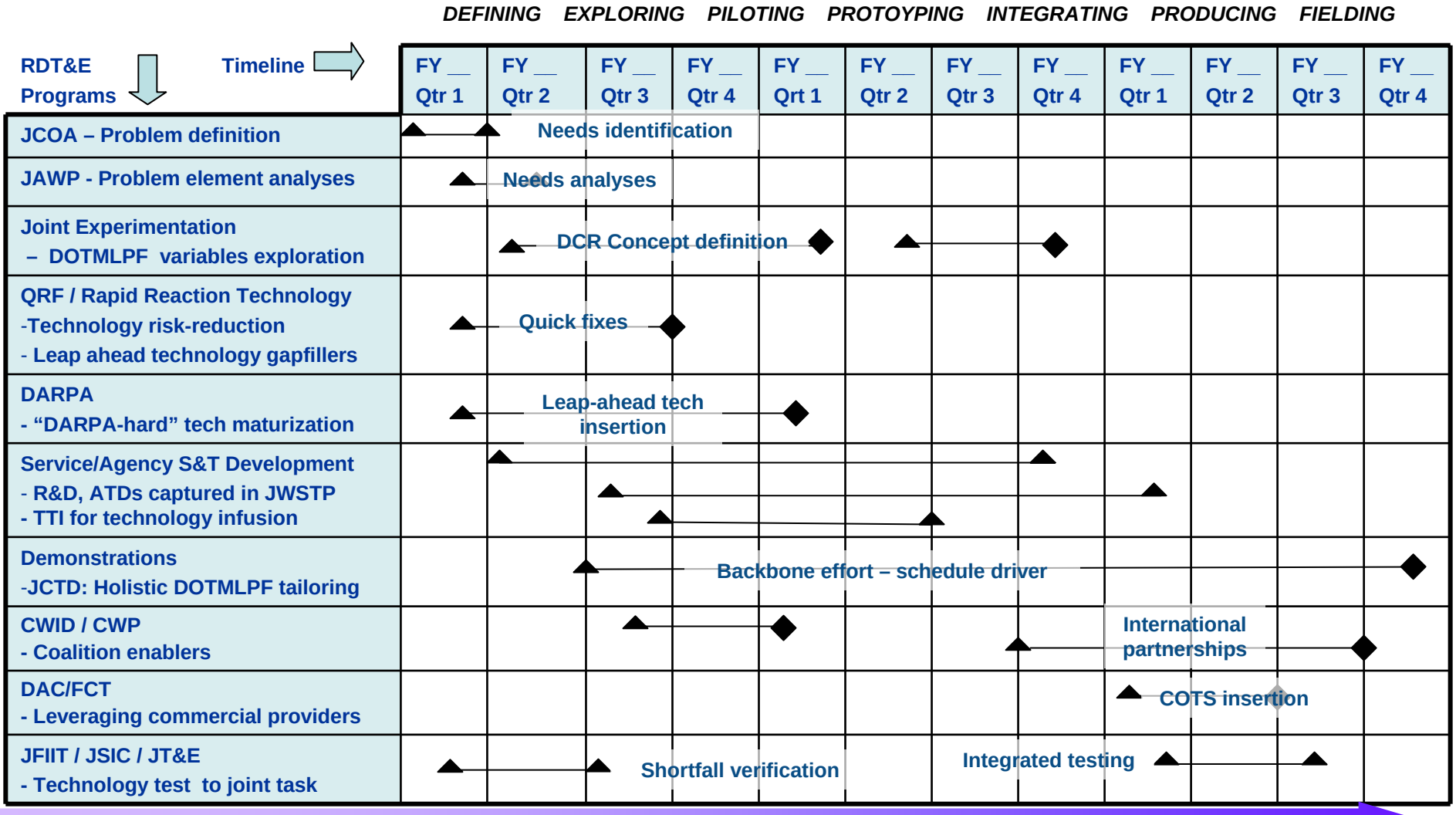
***Conceptualization***

- Needs identification/lessons learned/assessment
- Tech push exploitation

# Range of Current Technology Transition Programs



# Capability Development Strategy – Template Example




***Point of Departure: Capability Gap Assessment*** ***Output: Fielded Capability***

***A coherent strategy sets bar for solution providers & expectations for joint customers***

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# *Conceptual Framework for Military Capability Development*

# CoCom S&T Advisor Support Initiatives

**Coordinated S&T Conferences**

- Deconflicted CoCom conference schedule
- Consolidated RDT&E Program coverage / attendance

**CoCom S&T Advisor Input into DoD S&T Efforts**

- Marquee Component S&T efforts linked to desired operational capabilities
- Strategy and decision making bodies informed of CoCom S&T needs/potential

**Combatant Commands Science and Technology Community (CSTC) Portal – CoCom Homepages**

- DTIC-designed S&T Advisor tool
- Posting site for needs, on-going projects, hot keys to reference sites

**Tailored Joint Capability Development Strategies**

- To assist S&T advisors in formulating proposals from concept to transition
- Aims to involve Component Command S&T Advisors in gap remediation

# COCOM S&T Advisor Input into DoD S&T Efforts

**Science & Technology Integrated Priority List**

- Collect S&T needs that support CoCom IPLs
- Provide expertise to FCBs
- Inform JSJ8 of possible capability solutions
- Inform DoD S&T organizations of priority CoCom needs
- Stimulate information exchange among the CoCom S&T Advisors

**CSTAIG: CoCom S&T Advisor Integration Group**

- To stimulate information exchange between CoCom HQ S&T Advisors
- Potential adjunct to DSTAG
- Collect, disseminate S&T needs to FCBs, CPMs, and OSD S&T strategy producing bodies

# CoCom Staff Data/Information Enablers

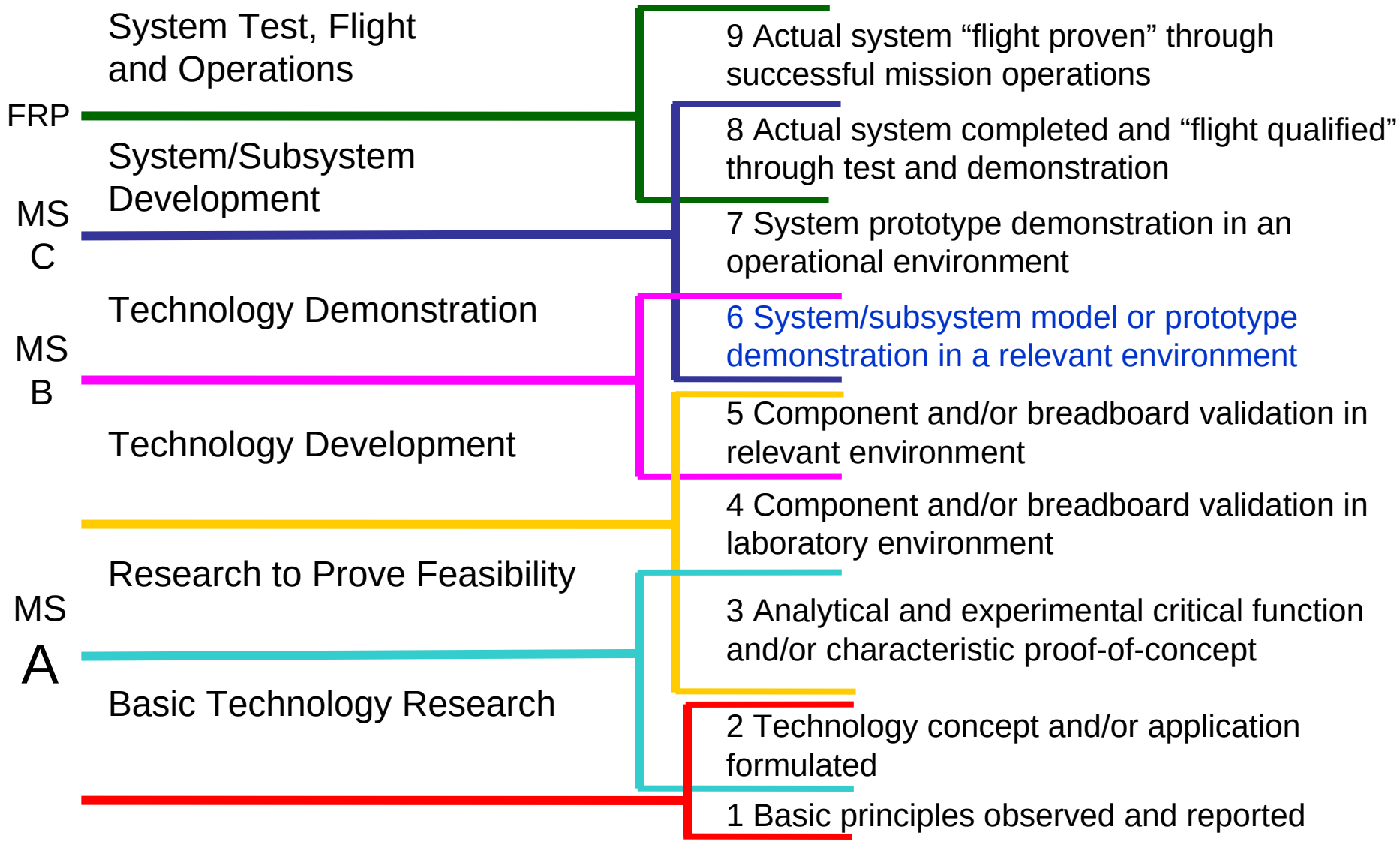
**Multiple domain visibility**
- Military needs, Defense resources, DOTMLPF development processes
- Joint Capability Area (JCA) portfolio assignments
- Capability Portfolio Management (CPM) activities
- Optimized for technical services

**Joint Warfighting Science & Technology Plan**
- Inter-Service, inter-Agency R&D effort transparency
- Project-level detail

**Adaptive capability programs: consolidated view**
- Searchable queries across diverse web sites
- Cross-cutting capability development effort checks
- Application cycles, project proposals, approval status
- Application/proposal clearing house services

**CoCom/Component Command S&T efforts**
- CoCom / CompCom S&T community listing
- Joint capability gap identification efforts
- Capability gap solution development efforts

**Master S&T Events Schedule**
- S&T Conferences, Technical SAGs, SWARFs
- Key developmental/adaptive acquisition program conferences
- Experimentation program events & conferences
- Experimentation/adaptive acquisition program application milestones

**Research services**
- Quick-response technical research services

# Technology Readiness Levels