Environment, Safety, and Occupational Health (ESOH) – Design Considerations to Strengthen Readiness & Sustainment

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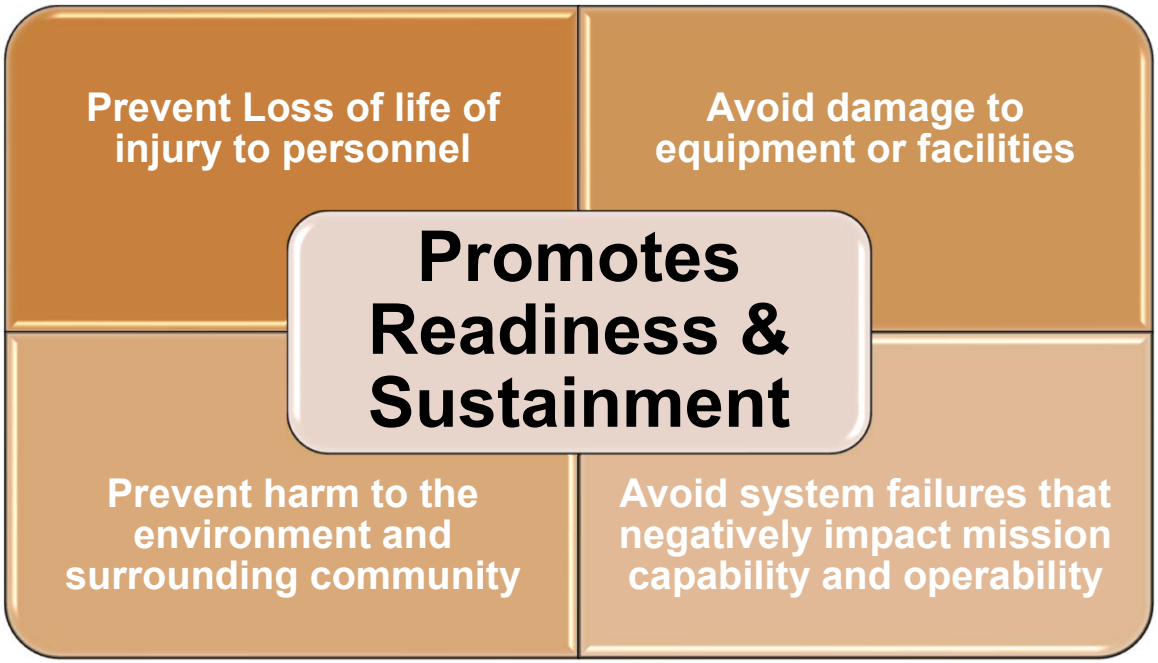
Agenda

- Acquisition ESOH Mission
- Areas of Focus
- Environment, Safety, and Occupational Health (ESOH) Design Considerations
- Policy – Where we Influence Design

Acquisition ESOH Mission

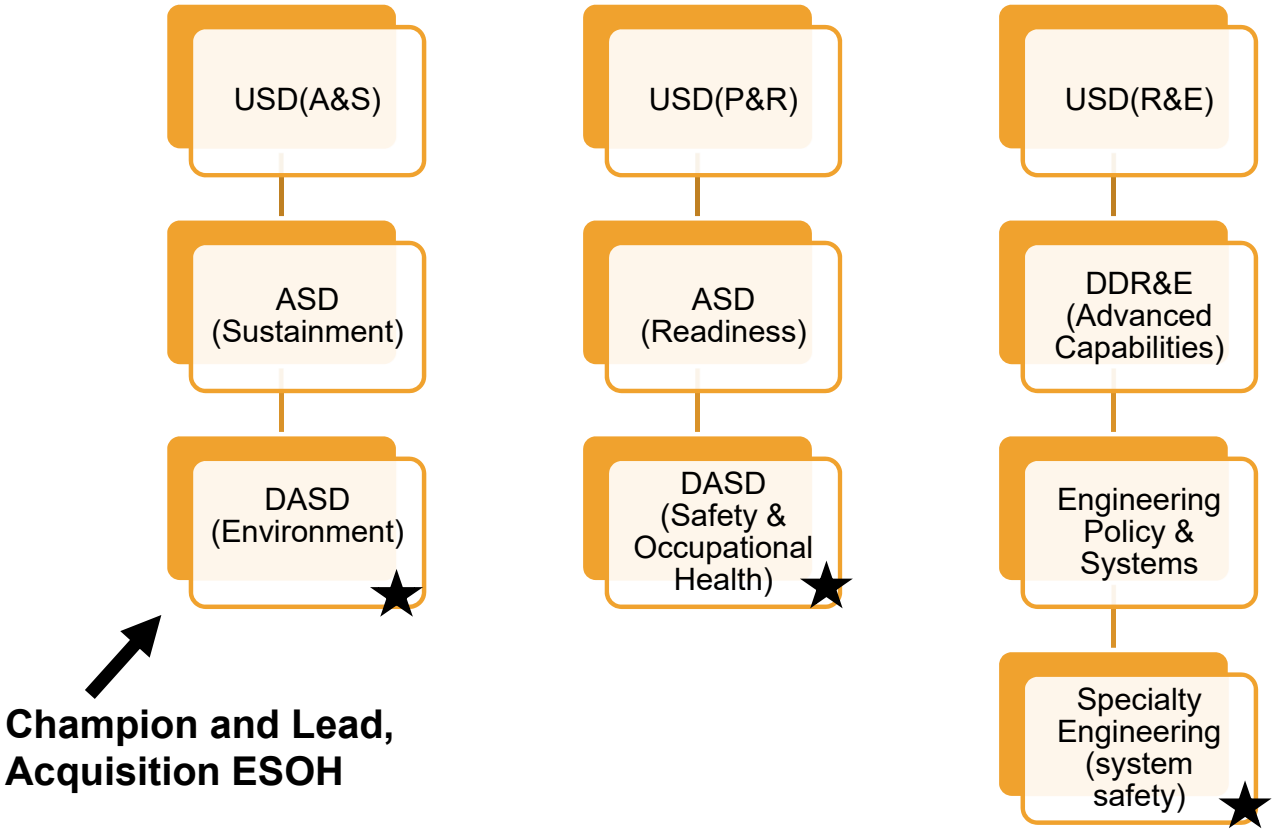


Acquisition ESOH Mission supports Sustainment

OASD(S) assures availability of natural and man-made resources to enable weapon systems and platforms that enhance warfighter lethality.

Availability of vital chemicals & materials needed for production, performance, and sustainment of systems are increasingly at risk.

Acquisition ESOH Responsibilities in DoD



★ Key Coordinators

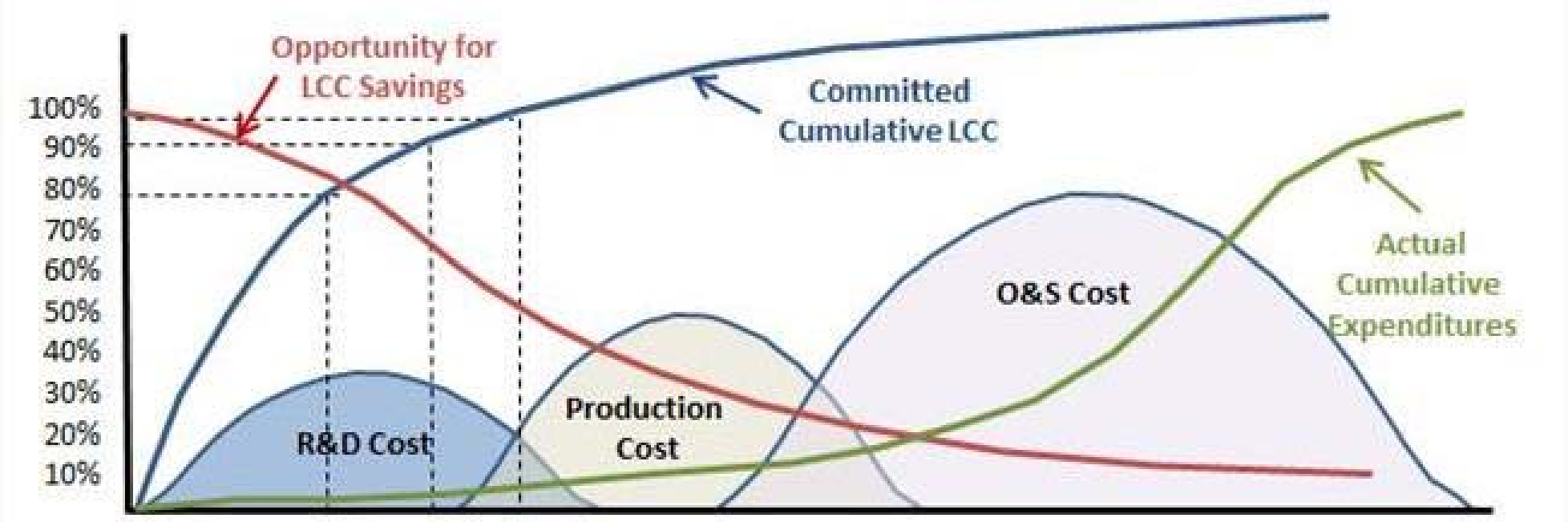
2019 Acquisition ESOH Focus Areas

- **Policy: Actively participate in DoD 5000-Series Update**
  - Defense Acquisition Policy Working Group (DAPWG)
  - OASD(Sustainment) 5000-Series WG
  - Engage with OUSD(R&E) Engineering Policy & Systems Directorate
- **Guidance**
- **Ensure Digital Engineering (DE) includes ESOH:**
  - Translate ESOH workflow (what we do) into DE environments
  - Monitor best practices within Services
  - Participate in OSD Digital Engineering Working Group (DEWG)

2019 Acquisition ESOH Focus Areas, continued

- **Work with Aerospace Industries Association (AIA) on hazardous materials (HAZMAT) management**
  - Update NAS 411, *HAZMAT Management Program (HMMP)* and NAS 411-1, *Hazardous Materials Target List (HMTL)*
- **Conduct program oversight**
  - Provide subject matter experts (SME) for Independent Technical Risk Assessments (ITRA)
  - Support Defense Acquisition Board process
- **DoD Acquisition ESOH IPT**
  - Capitalize on cross functional expertise of IPT
  - Members are from all Services, several Components, and across Program Offices

Why Design Considerations are Critical



Life Cycle Costs (LCC):

- 80-90% of LCC committed during research and development (R&D)
- 60-80% of LCC incurred during operations and support (O&S)

Benefits of ESOH Design Considerations

- **Mission:**
  - Protects Warfighter
  - Supports System Sustainment Capabilities
  - Operational Readiness
- **Program:**
  - Decrease Schedule Risk
  - Lead to System Performance Improvements; reduce risk
  - Lower Life Cycle Cost
- **Systems Engineer:**
  - Helps Define System Architecture and Requirements
  - Brings Broad Prospective to the Systems Engineering Team
  - Helps Identify and Mitigate System Risks

Examples – Acquisition ESOH Design Considerations

- **Compliance with Environmental Regulations**
  - For example, National Environmental Policy Act & Executive Order 12114, Environmental Effects Abroad of Major Federal Actions
- **Operational noise**
- **Nitrogen oxide emissions (e.g., from aircraft)**
- **Laser safety**
- **Minimizing risks from hazards**
  - Includes managing software system safety risks
- **Hazardous Material (HAZMAT) identification, minimization, and management**
  - Supports Foreign Material Sales
- **Choosing Sustainable Procurement products where possible**

Incorporating ESOH considerations promotes Readiness and Sustainment

Defense Acquisition System Re-write

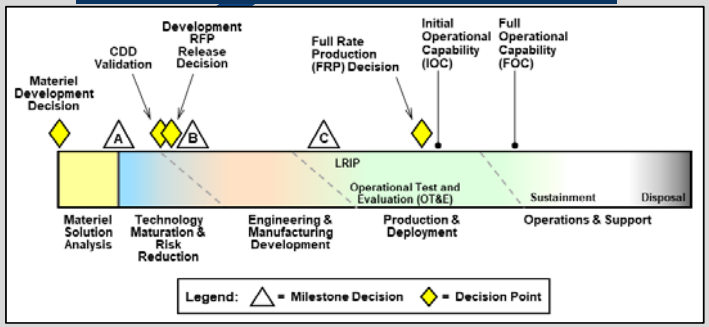
- **Driven by USD(A&S)**
- **Goal is to deliver effective and affordable solutions to the end user in a timely manner.**
  - Simplify Acquisition policy
  - Tailor Acquisition approaches
  - Empower Program Managers
  - Incorporate data driven analysis
  - Active Risk Management
  - Emphasize Sustainment
- **Targeting completion by December 31, 2019**

Policy will Influence Design Considerations

Changing Our Approach to Acquisition Policy

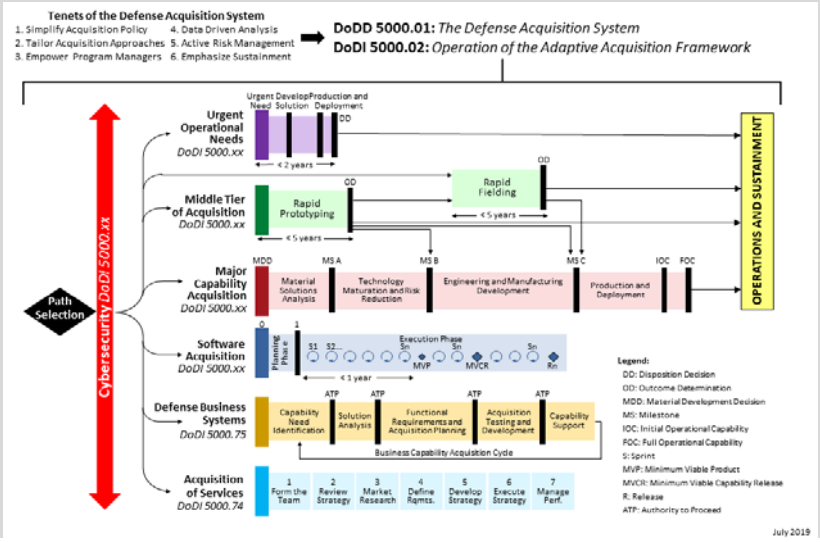
Traditional Acquisition Architecture

One Tailorable Model Fits All



Emerging Acquisition Architecture

An Adaptive Acquisition Framework, Allowing the Design and Use of Multiple Pathways, Dependent on the Characteristics of the Product, System, or Service Being Acquired



DoDD 5000.01, Defense Acquisition System (DAS)

- **Increased focus on responsibilities and fewer overarching policies**
- **Participated in A&S-internal coordination**
  - DoD Acquisition ESOH recommended:
    - Explicitly identifying Offices of Primary Responsibility
      - OASD(S) for Environment
      - OUSD(P&R) for Safety and Occupational Health
      - ODASD(ENV) will continue to champion ESOH
    - ESOH risk management is one of the aspects governing the DAS policy

DoDI 5000.02 – How it is Changing

- **Renamed to "Operation of the Adaptive Acquisition Framework"**
- **Size shrinking from 170 pages to approx.15 pages**
- **Overarching**
  - Describing the responsibilities of principal acquisition officials
  - Key characteristics of the different acquisition pathways
- **Participating in A&S-internal coordination**
  - Comment adjudication underway

Additional Changes to the Defense Acquisition System

- **DoDI 5000.UC, *Middle Tier of Acquisition (MTA)***
  - Working to get safety added to the Instruction
  - Contributing to MTA Guide
- **DoDI 5000.UB, *Urgent Capability Acquisition***
  - Formal SES coordination done; adjudication in progress
  - DoD Acquisition ESOH IPT recommends:
    - Add language to require ESOH risk acceptance
    - Add environment to statutory requirements (SOH is there)

Additional Changes to the Defense Acquisition System

- **DoDI 5000.MCA, Major Capability Acquisition (MCA) (traditional acquisition pathway):**
  - Retains Product Support (Sustainment) Enclosure
  - Includes Requirement for Formal ESOH Risk Acceptance
- **DoDI 5000.XX, Software Acquisition**
  - Under Development
  - Working to include software system safety
- **DoDI 5000.75, Business Systems**
  - Publication complete (8/31/18)
- **DoDI 5000.74, Acquisition of Services**
  - Publication complete (8/31/18)

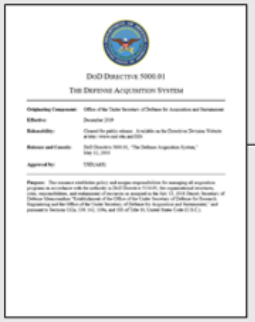
Planned Functional Policies

Current DoDI 5000.02

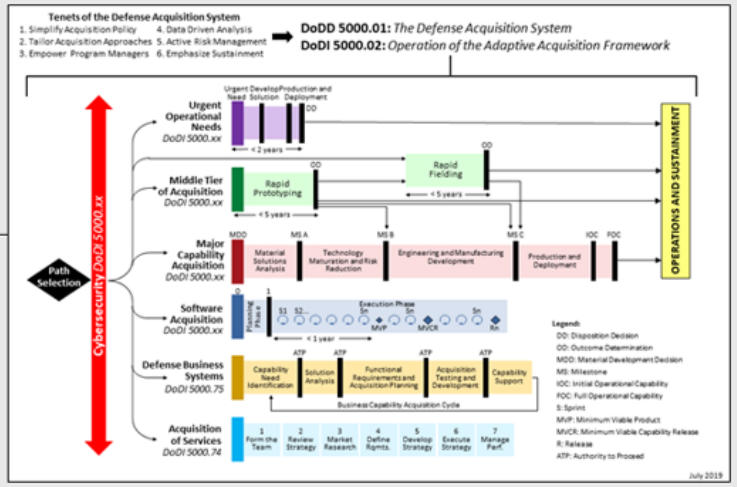
- **CORE A&S ACQUISITION POLICY** — A&S
  - Policy
  - Responsibilities
  - Procedures
  - Decision Points and Phases
- **FUNCTIONAL ENCLOSURES**

Acquisition Categories and Compliance Requirements	A&S
Program Management	A&S
Systems Engineering	R&E
Developmental T&E	R&E
Operational & Live Fire T&E	DOT&E
Life-Cycle Sustainment	A&S
Human Systems Integration	P&R
Affordability Analysis and Investment Constraints	A&S
Analysis of Alternatives	CAPE
Cost Estimating and Reporting	CAPE
Information Technology	CIO
Urgent Capability Acquisition	JRAC
Cybersecurity	R&E

Revised DoD Directive 5000.01



Revised DoD Instruction 5000.02, Operation of the Adaptive Acquisition Framework



Separately Published Functional Policies

- OT&E — DOT&E
- DT&E — USD(R&E)
- Systems Engineering — USD(R&E)
- Human Systems Integration — USD(P&R)
- AoAs — DCAPE
- Cost Estimating — DCAPE
- Information Technology — DoD CIO
- Acquisition Intelligence — USD(A&S)
- Intellectual Property — USD(A&S)
- Cybersecurity — USD(A&S) et.al.
- Program Protection — USD(R&E)

DAU Website

- DoD Directive 5000.01
- DoD Instruction 5000.02
- DoD Instructions 5000.xx, (ea. Pathway)
- Functional Policy Documents
- Tables (Milestone Documentation Identification Tool)
- Defense Acquisition Guidebook
- Other Tools

Additional Changes to the Defense Acquisition System

- **Enclosure 1, Table 2, Statutory and Regulatory Requirements**
  - Example: PESHE, NEPA/EO 12114 Compliance Schedule
  - Will be placed on Defense Acquisition University (DAU) website
- **Enclosure 14, Cybersecurity → DoDI 5000.XX, *Cybersecurity***
- **Enclosure 6, Life Cycle Management**
  - Enclosure remains
  - Long term → DoDI 5000.PSM, *Product Support*, tailored to different pathways

Summary

- Executing the Acquisition ESOH mission promotes the readiness and sustainment of systems.
- Acquisition ESOH focus areas support the mission
- ESOH Design Considerations need to be incorporated into system design early to ensure system availability and operational capability
- The ESOH Design Considerations are ultimately linked to ESOH Risk Management
- It is imperative ESOH risk management is integrated into updated policy and guidance

Questions?

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BACKUP

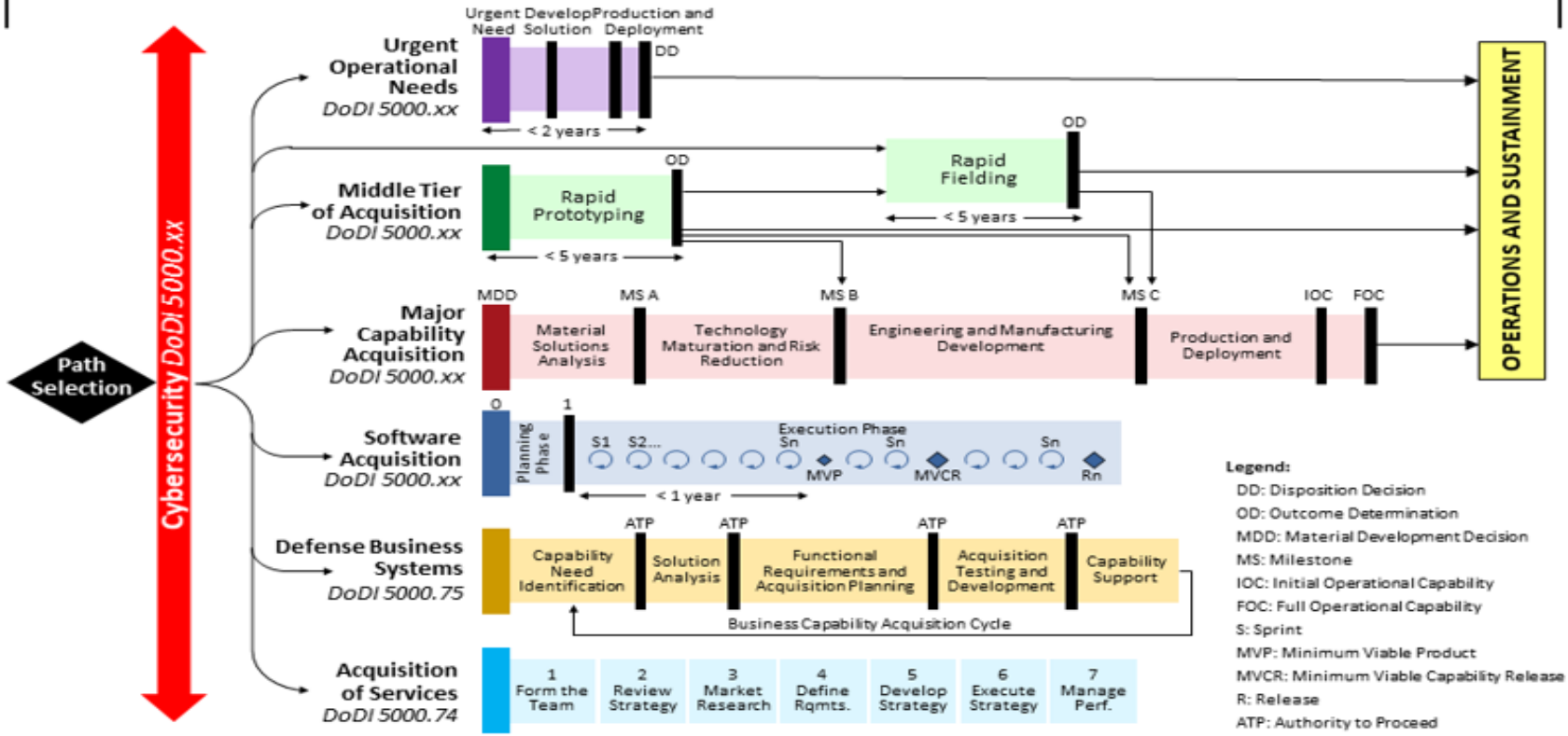
Adaptive Acquisition Framework

Enable Execution at the Speed of Relevance

Tenets of the Defense Acquisition System

1. Simplify Acquisition Policy
2. Tailor Acquisition Approaches
3. Empower Program Managers
4. Data Driven Analysis
5. Active Risk Management
6. Emphasize Sustainment

DoDD 5000.01: *The Defense Acquisition System*
DoDI 5000.02: *Operation of the Adaptive Acquisition Framework*



Legend:

- DD: Disposition Decision
- OD: Outcome Determination
- MDD: Material Development Decision
- MS: Milestone
- IOC: Initial Operational Capability
- FOC: Full Operational Capability
- S: Sprint
- MVP: Minimum Viable Product
- MVCR: Minimum Viable Capability Release
- R: Release
- ATP: Authority to Proceed

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