



# **Implementing OSD Systems Engineering Policy**

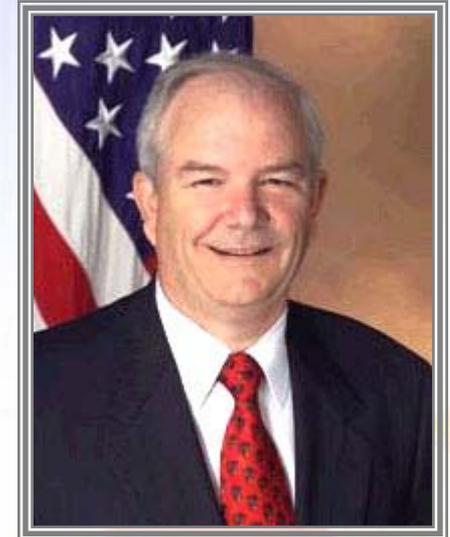
**November 2004**

**Robert J. Skalamera**  
**Deputy Director, Systems Engineering,**  
**Enterprise Development**  
**Office of the Under Secretary of Defense (AT&L)**

# USD(AT&L) Imperatives

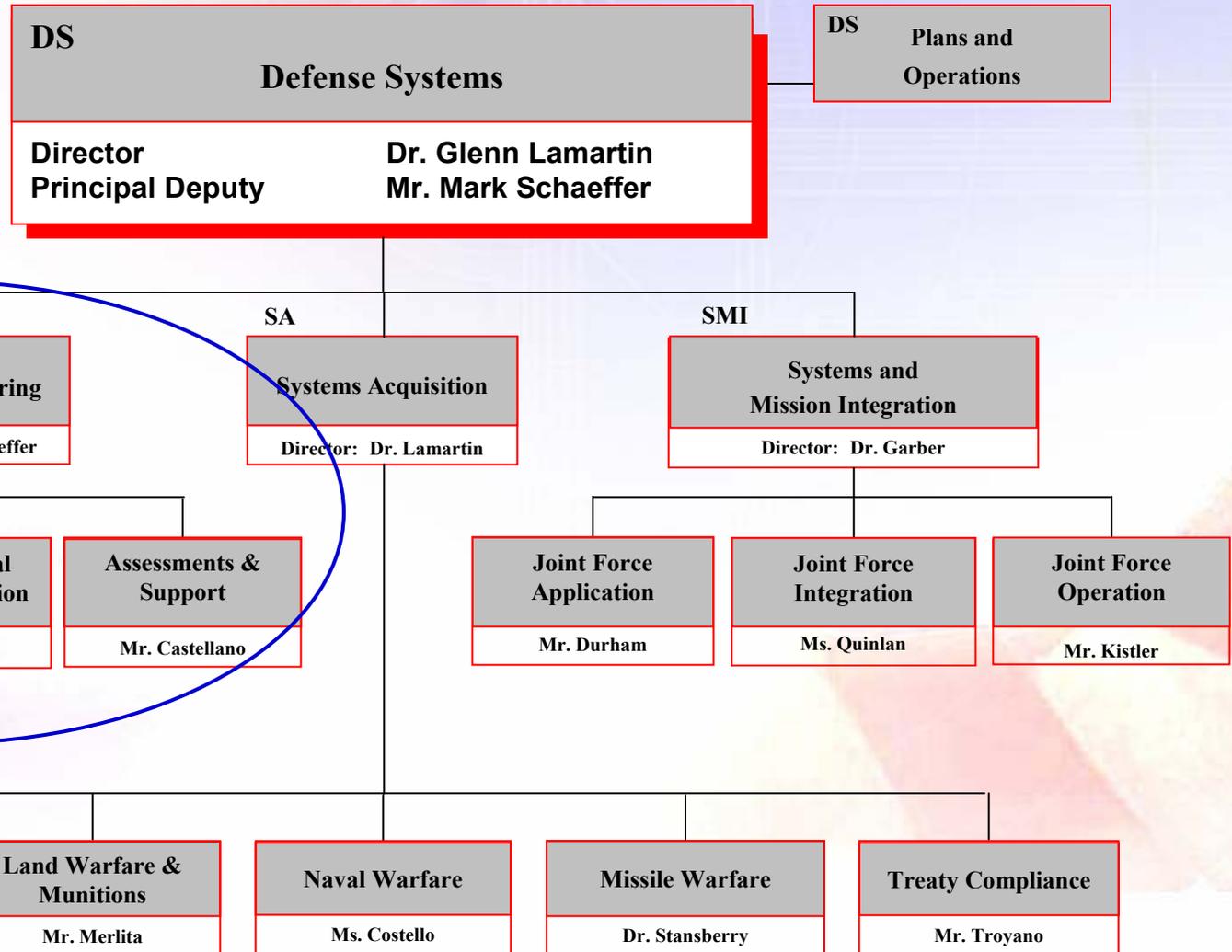


- “Provide a context within which I can make decisions about individual programs.”
- “Achieve credibility and effectiveness in the acquisition and logistics support processes.”
- “Help drive good systems engineering practice back into the way we do business.”





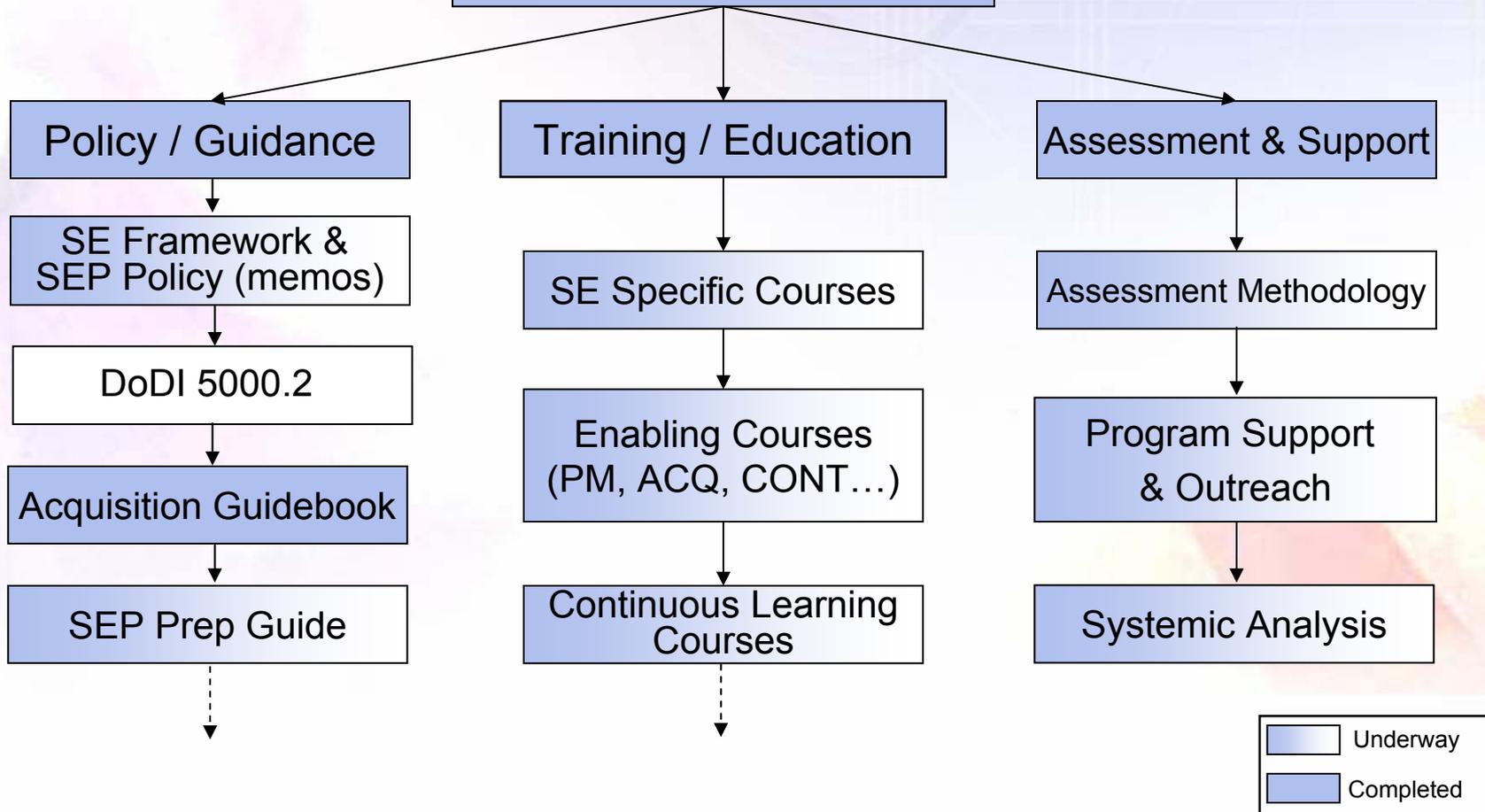
# Defense Systems Organization



# SE Revitalization



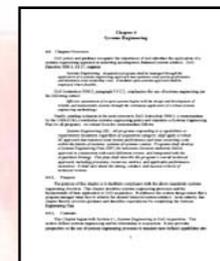
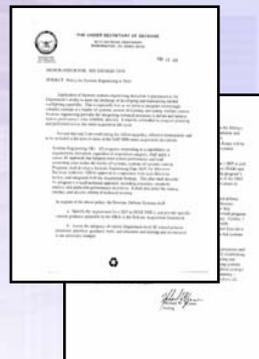
## Elements of SE Revitalization





# Policy and Guidance

- DUSD(AT&L) SE Policy Memo
- Director, DS, SEP Interim Guidance Memo
- Draft, DUSD(AT&L) SE Policy Addendum
- Defense Acquisition Guidebook, Chapter 4
- SEP Preparation Guide





# Systems Engineering Policy in DoD

Signed by the Honorable Mike Wynne, USD(AT&L) (Acting) Feb 20, 2004

- All programs, regardless of ACAT shall:
  - Apply an SE approach
  - Develop a Systems Engineering Plan (SEP)
    - Describe technical approach, including processes, resources, and metrics
    - Detail timing and conduct of SE technical reviews
- Director, DS tasked to provide SEP guidance for DoDI 5000.2
  - Recommend changes in Defense SE
  - Establish a senior-level SE forum
  - Assess SEP and program readiness to proceed before each DAB and other USD(AT&L)-led acquisition reviews



# SEP Implementation Guidance

Per OUSD(AT&L) Defense Systems Memo signed Mar 30, 2004

- Submitted to MDA at each Milestone, SEP describes:
  - Systems engineering approach
    - Specific processes and their tailoring by phase
    - Both PMO and Contractor processes
  - Systems technical baseline approach
    - Use as control mechanism, including TPMs and metrics
  - Technical review criteria and outcomes
    - Event driven
    - Mechanism for assessing technical maturity and risk
  - Integration of SE with IPTs and schedules
    - Organization, tools, resources, staffing, metrics, mechanisms
    - Integrated schedules (e.g., IMP and IMS)

# SE Policy Addendum



Signed by the Honorable Mike Wynne, USD(AT&L) (Acting) Oct 22, 2004

- Each Program Executive Officer (PEO) shall have a lead or chief systems engineer
- The PEO lead or chief systems engineer shall:
  - Review assigned programs' SEPs and oversee their implementation
  - Assess the performance of subordinate lead or chief systems engineers
- Technical reviews shall:
  - Be event driven (vice schedule driven)
  - Conducted when the system under review meets review entrance criteria as documented in the SEP
  - Include participation by subject matter experts independent of the program, unless waived by SEP approval authority in the SEP



# Systems Engineering Plan

- Developed a SEP Preparation Guide (Version 0.90)
- Posted SEP Guide on OSD/DS/SE page with links to appropriate guidance in *Defense Acquisition Guidebook*
- Will implement on select programs currently developing their SEPs
- Will continue collecting feedback to revise and update Guide

<http://www.acq.osd.mil/ds/se/publications.htm>



# SE in Defense Acquisition Guidebook

- New SE guidance to acquisition community—  
Chapter 4
- Best practices for “applied” SE
  - SE process
  - Guide for each acquisition phase, concept refinement through disposal
- Linkage of SE products and processes to acquisition objectives and decision points

<http://akss.dau.mil/dag/welcome.asp>



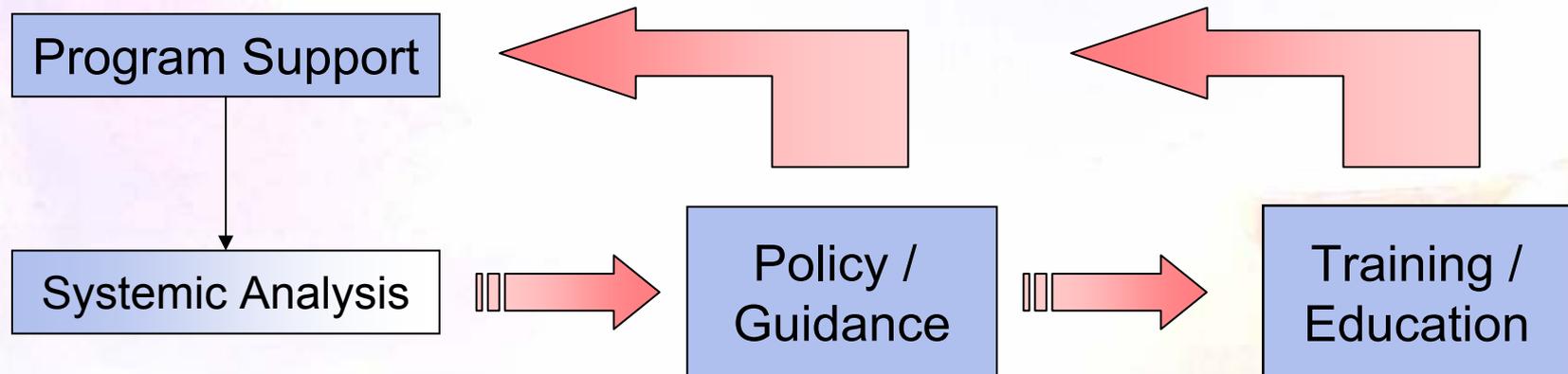
# SE Education & Training

- DAU (DAWIA) courses under review
  - SPRDE
  - ACQ MGMT / PM
  - LOG
  - BCEFM
  - CON
  - TST
  - SAM
  - PQM
- Prioritized, focused continuous learning courses (e.g., R&M, Technical Reviews, System Safety, SEP Preparation)



# Assessment and Support

- Common Methodology
  - Assessment
  - IOT&E Readiness
  - Non-Advocacy





# Summary

- Our ultimate goal is to help our programs and ensure mission success through revitalization of Systems Engineering
- Early and persistent SE applied to programs
- Event-driven technical reviews with expert peer participation

*Systems Engineering for Mission Success*