



# LAI Working With the US Army for Enterprise Transformation

**Dr. Eric Rebentisch**

Massachusetts Institute of Technology

March 2010

- **Eric Rebentisch: LAI/Army ESAT overview (Army Materiel Enterprise, System of Systems Engineering), reflections on the ESAT process**
- **Nancy Moulton: Army Materiel Enterprise (ME) reflections on the experience, on-going efforts and progress**
- **Jerry Coover: Implementation efforts and change dynamics, other enterprise perspectives**
- **Panel discussion and Q&A**

# Enterprise Strategic Analysis and Transformation (ESAT)

Strategic Objectives

**ESAT**

Enterprise Analysis

**Enterprise Identification**

Enterprise Capabilities

Enterprise Measurement Systems

Stakeholder Analysis

Enterprise Process Architecture

Process Interaction Analysis

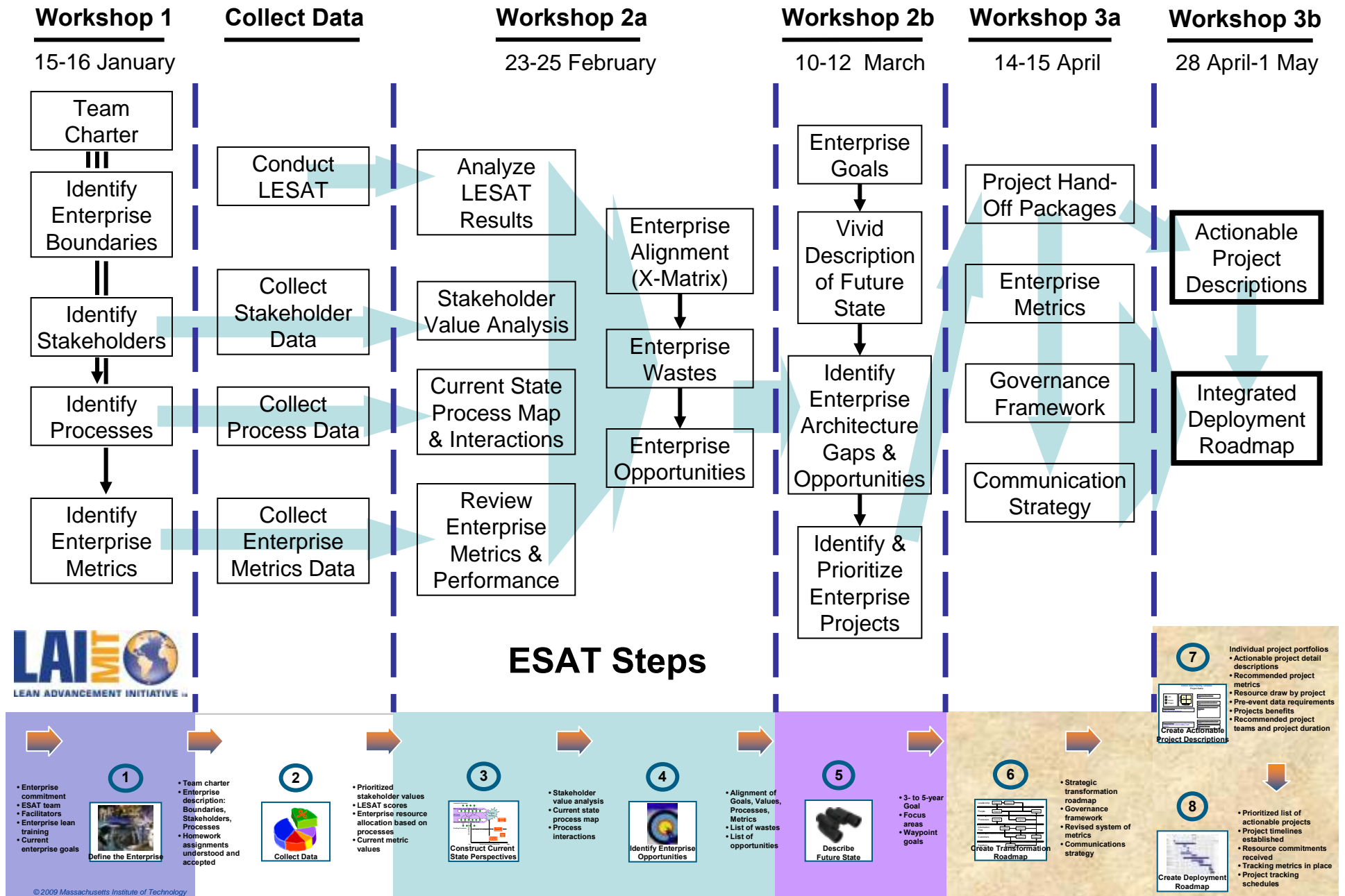
Enterprise Alignment Analysis

Future State Analysis

**Future State Vision**

**Actionable Transformation Plan**

# Enterprise Strategic Analysis for Transformation (ESAT) Process Flow



# Material Enterprise Senior Leaders Actively Involved in Workshops





# ME Transformation Plan Accepted by ME Leaders 1 May 2009

“The quality of this work is very impressive. I only wish that given the many challenges facing our nation right now, that the rest of the government could benefit from the level and quality of analysis and work done by this team.” Mr. Dean Poppo — Acting ASA(ALT)

“My thanks go to the entire team for your energy and efforts to make this happen and to develop closer working relationships across our communities.... It’s exciting to me to see the level of commitment of our Deputies, 2-stars, and PEOs. I’ve already seen the results of this increased collaboration.” GEN Dunwoody — CG/AMC

## Work on projects began immediately



# System of Systems Engineering (SOSE) ESAT

- **Objective: create SOS analysis capability at ASA(ALT) level to coordinate efforts across acquisition programs and portfolios, capability sets, unit formations, and time**
- **ESAT process included 3 workshops in DC area (20-30 participants each) from Jun to Sep 2009**
- **ESAT team: SAAL ZS (lead), SAAL ZT, G8, G6, G3/5/7, TRADOC, ATEC, PEOs (GCS, EIS, C3T, JTRS, Soldier, IEW&S, M&S, CS&CSS, STRI, AVN, BCT Mod, AMMO), AMC, RDECOM**



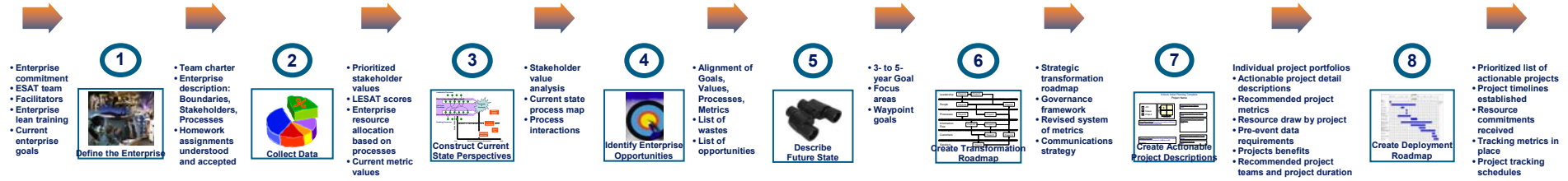
**Delivered SOSE Strategy, Implementation Plans in  
Mid-September**

# System of Systems SE ESAT Workshops Overview

<u>Workshop 1</u>	<u>Collect Data</u>	<u>Workshop 2</u>	<u>Collect Data</u>	<u>Workshop 3</u>
<b>23-24 June 2009</b>	<b>9 July 2009</b>	<b>22 -24 July 2009</b>	<b>19 Aug 2009</b>	<b>1-3 Sep 2009</b>
<i>Define the Problem</i>	<i>Measure</i>	<i>Characterize the Current State; Define Future State; Generate Options</i>	<i>Measure; Assess Options</i>	<i>Codify the Future State; Generate Implementation Plan</i>
<p>Team Charter</p> <p>Enterprise description and stakeholders</p> <p>Value proposition and deliverables—initial definition</p> <p>Processes—initial definition</p> <p>Roles and responsibilities—initial definition</p>	<p>Capture stakeholder values, and Value exchange</p> <p>Investigate Roles, Responsibilities &amp; Authorities</p> <p>Investigate Enterprise Processes</p>	<p>Stakeholder Value and Expectations Defined</p> <p>Finalize SOS SE Enterprise description</p> <p>Future State Vision and Mission of the SOS SE function</p> <p>Processes—including inputs and outputs; sources and customers; process location and owner; capabilities and resources required; measures of process performance</p> <p>Define SOS SE Schedule Op Tempo of Activities</p> <p>Enterprise Evaluation Criteria</p> <p>SOS SE Draft Organizational Structure and relationships</p>	<p>Review vision, mission, goals, vivid descriptions</p> <p>Update Process descriptions (SIPOC details)</p> <p>Define Roles, Responsibilities, and Authorities</p> <p>Define Critical skills</p> <p>Develop SOS SE Enterprise description</p> <p>Provide inputs on Organization/ Governance structure</p> <p>Refine Schedule Op Tempo map</p>	<p>Finalize vision, mission, goals, and vivid descriptions</p> <p>Finalize and document Processes and Flows, including roles and responsibilities of various stakeholders</p> <p>Finalize and document Schedule Op Tempo and implications</p> <p>Finalize and document organizational structures and relationships</p> <p>Define metrics to assess capability, impact, and transformation progress</p> <p>Assess enterprise alignment</p> <p>Define projects to develop needed capabilities not currently existing</p> <p>Define actions, responsible parties, sequence of implementation, resources required</p>



## ESAT Steps







# SOSE Goal, Vision, Mission

- Strategic Goal: Warfighters have what they need, when they need it, and it works.
- Vision: The SOSE organization leads the synchronization of Army technical efforts and enables delivery of world-class integrated materiel solutions to the Warfighter.
- Mission: Architect and enable the incremental delivery of relevant, integrated and affordable capabilities by formation type in support of the Army's guidance, modernization strategy, and Army Force Generation model.



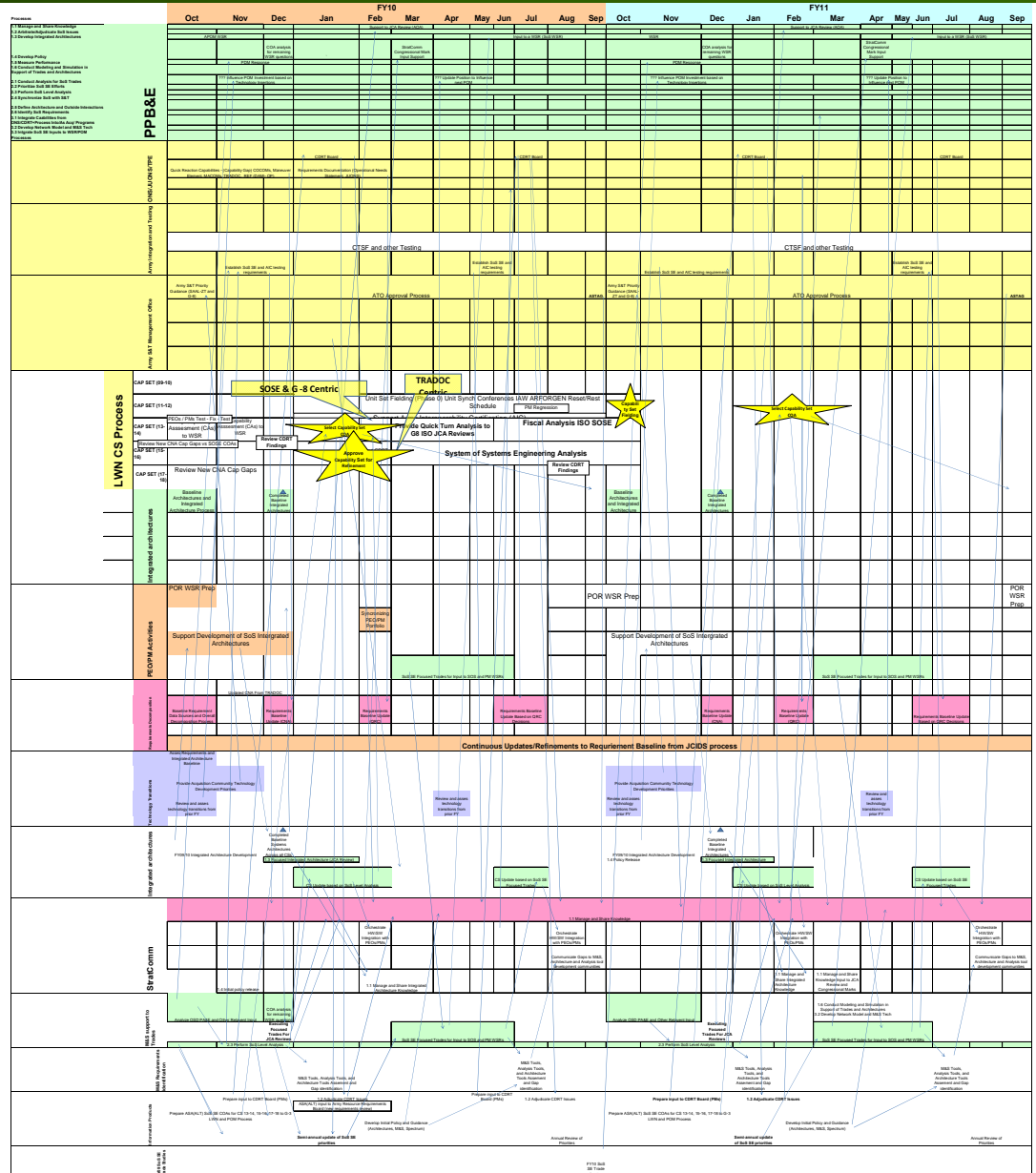
# SOS SE Strategic Objectives

- Synchronize acquisition program requirements and programmatic
- Use SOS SE efficiencies to improve capabilities delivered despite fiscal constraints
- Be a recognized source for authoritative SOS acquisition decision data
- Provide authoritative SOS architectures for all Army formations
- Shape tools needed to execute SOS SE mission
- Establish systems engineering enterprise standards
- Shape S&T investment strategy



# Annual Decision Cycle

- Identifies major activities over annual cycle linked to major Army processes
  - PPB&E
  - ONS/JUONS/TPE
  - Army Integration and Testing
  - Army S&T Management Office
  - LWN CS Process
  - Integrated architectures
  - PEO/PM Activities
  - Requirements Decomposition
  - Technology Transitions
  - Integrated architectures
  - StratComm
  - M&S support to Trades
  - M&S Requirements identification
  - Information Products
  - FY09 SoS SE Trade Studies
- Linked back to processes identified by SOS SE, Acquisition Enterprise, and Larger Army working groups





# What Has Happened With SOSE Since the ESAT?

- Leadership changes post-ESAT: new ASA(ALT), MILDEP, Dir. and Dep. Dir. SOSE
  - Senior leadership support for SOSE is very good currently
- Staffing SOSE is proceeding albeit more slowly than desired
- VCSA offered a couple of *opportunities* for quick-response SOS studies, currently underway
  - “Flex the muscles” and exercise the relationships needed for on-going analysis
  - Demonstrate the value of SOS analysis to stakeholders
- Key stakeholders are moving from “wait and see” to support as they become engaged
- Task ahead: continue to draw upon ESAT insights, exercise the processes, refine, and formalize
  - Growing SOS *enterprise identity* was palpable by the end of the ESAT workshops



# Reflecting on Our Experiences with the ME and SOSSE ESATs

- Under a wide range of circumstances, the ESAT process was able to bring together stakeholders with fairly different perspectives to develop a common vision, purpose, and roadmap for way ahead
- There is power in creating shared artifacts to bring diverse groups together
- Both efforts stretched the ESAT process/toolset
  - ME ESAT involved existing enterprises in newly-defined formal relationships—a very large and complex enterprise
  - SOSSE involved creation of a new function and organization (with few precedents), introduced elements of enterprise architecting
  - Were ultimately able to adapt the basic ESAT approach to accommodate significant new challenges, adding to the experience base in the process
- LSS/CPI tools were necessary but not sufficient for enterprise-level redesign challenges
  - MBBs with experience working enterprise-level projects were key enablers to help the team through the complexity of the analysis
- Sustaining senior leadership involvement and interest was critical to signaling urgency of transformation to the entire enterprise