Enterprise Strategic Analysis for Transformation for the Materiel Enterprise

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Presentation Overview

• Enterprise Strategic Analysis for Transformation (ESAT) Overview

• Materiel Enterprise (ME) ESAT

• System of Systems Engineering (SOSE) ESAT

• Reflections
ESAT Context

• 1993: The Lean Advancement Initiative (LAI) is a collaborative effort among industry and government organizations, MIT, and other academic institutions—originally formed to identify and implement lean principles and practices throughout the aerospace industry.


• Ca. 2004: ESAT method is designed to support the planning phase of the Enterprise Transformation Roadmap.
  • The output of ESAT is a transformation plan that forms the basis for the “Execution” phase of the Roadmap.
  • Emphasis shifts over time away from lean focus toward enterprise integration and architecting.
Enterprise Transformation Roadmap

**STRATEGIC CYCLE**

- **Determine Strategic Imperative**
  - Articulate Business Case for Lean
  - Focus on Stakeholder Value
  - Leverage Lean Gains

- **Perform Stakeholders Analysis**
- **Define As-Is Value Stream**
- **Perform Enterprise Assessment**
- **Create Vision of Future State**
- **Define “To-Be” Enterprise Value Stream**
- **Perform Gap Analysis**

- **PLANNING CYCLE**
  - **Understand Current State**
    - Perform Stakeholders Analysis
    - Define As-Is Value Stream
    - Perform Enterprise Assessment
  - **Capabilities & Deficiencies Identified**
  - **Envision & Design Future Enterprise**
    - Create Vision of Future State
    - Define “To-Be” Enterprise Value Stream
    - Perform Gap Analysis
  - **Long-Term Corrective Action**
  - **A Committed Leadership Team**
  - **Short-Term Corrective Action**
  - **Lean Enterprise Vision**
    - Align Organization
    - Align Incentives
    - Empower Change Agents
    - Rationalize Systems & Policies
    - Align Metrics

- **EXECUTION CYCLE**
  - **Create Transformation Plan**
    - Identify Key Enterprise Improvement Project Areas
    - Determine Impact Upon Enterprise Performance
    - Prioritize, Select and Sequence Project Areas
    - Publish Communication Plan
  - **Implement & Coordinate Transformation Plan**
    - Develop Detailed Project Implementation Plans
    - Synchronize Detailed Plans
    - Implement Projects and Track Progress
    - Commit Resources
    - Provide Education & Training
  - **Nurture, Process & Imbed Lean Enterprise Thinking**
    - Monitor & Measure the Outcomes
    - Nurture Process, & Imbed Lean Culture
    - Capture & Diffuse Lessons Learned
    - Synchronize Strategic Long-Term & Short-Term Cycles
  - **Alignment Requirements Identified**

- **Alignment Leadership in Transformation**
  - Convey Urgency
  - Foster Executive Lean Learning
  - Obtain Executive Buy-In
  - Establish Executive Lean Transformation Council

**Source:** Nightingale, Srinivasan and Mize

http://lean.mit.edu

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Enterprise Strategic Analysis for Transformation

1. Define the Enterprise
   - Team Charter
   - Enterprise Description: Boundaries, Stakeholders, Processes

2. Collect Data
   - Prioritized Stakeholder Values
   - LESAT Scores
   - Enterprise Resource Allocation
   - Processes Data
   - Current Metric Values

3. Construct Current State Perspectives
   - Stakeholder Value Analysis
   - Current State Process Map
   - Process Interactions

4. Identify Enterprise Opportunities
   - Alignment of Goals, Values, Processes, Metrics
   - List of Wastes
   - List of Opportunities

5. Describe Future State Vision
   - 3 - 5-yr Goal
   - Transformation Focus Areas
   - Waypoint Goals

6. Create Transformation Plans
   - Strategic Transformation Plan
   - Governance Model
   - Revised System of Metrics
   - Communication Plan

7. Create Actionable Project Descriptions
   - Project Portfolios
     - Detailed Descriptions
     - Recommended Metrics
     - Resources Required by Project
     - Project Benefits

8. Create Deployment Plans
   - Integrated Transformation Plan
**Mission**

- Perform strategic analysis of materiel enterprise
- Deliver an enterprise level transformation roadmap and the associated structure for implementation

**Goal**

Create a framework to enhance performance of the materiel enterprise and synchronize with ARFORGEN cycle for current and future forces (where performance characteristics include effectiveness, efficiency, robustness, speed and flexibility).

Source: Nancy Moulton, presentation at LAI Annual Conference, Dana Pt. CA March 24, 2010
Materiel Enterprise Senior Leaders Actively Involved in 5 Workshops
Measure and Analyze the Current Operating Model

- Identify the Enterprise Core Value and Map Critical Processes
- Analyze the Critical Processes for Waste, Opportunities and Gaps
  (Analysis Tools will Vary – depending on the Application)

- Measure the Effectiveness and Lean Maturity of the Enterprise
- Tool Utilized Focuses on
  1) Capability Maturity Model
  2) Enterprise Management and Transformation
  3) Continuous Process Improvement
- X-Matrix was utilized to validate / identify gaps between Strategy, Value Delivered, Processes and Metrics

Source: Nancy Moulton, presentation at LAI Annual Conference, Dana Pt. CA March 24, 2010
ME Transformation Plan

- The Transformation Plan establishes a general vector to guide the efforts to create a collaborative association known as the Materiel Enterprise (ME)

- The plan provides context, direction, and specific assignments and schedules for the execution of ME Project work

- It contains a discrete set of ME Projects that will receive immediate emphasis and others that will be conducted as rapidly as possible

Source: Nancy Moulton, presentation at LAI Annual Conference, Dana Pt. CA March 24, 2010
Execution of Materiel Enterprise Transformation Plan

ME Strategic Goal

ME Enabling Goals

42 Parent Projects (Non-Gated)

59 Descendant Projects (Gated & Non-Gated)

Example:

ME Project 2.5 – Reduce Operating and Support Costs of Fielded and Future Systems

22 Descendants Such As:

- Operating Support Cost Reduction (DMAIC¹)
- Value Engineering Program (DMAIC¹)
- Engineering Support to Depot (DMEDI²)

Notes:
1. Five-phased methodology for improving existing processes; Define-Measure-Analyze-Improve-Control
2. Five-phased methodology for developing new processes; Define-Measure-Explore-Develop-Implement

Source: Nancy Moulton, presentation at LAI Annual Conference, Dana Pt. CA March 24, 2010
Status of 42 Parent Projects
Percent Complete

Note: Start Now Projects are 62% Complete
Source: Nancy Moulton, presentation at LAI Annual Conference, Dana Pt. CA March 24, 2010
• 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, I EW&S, M&S, CS&CSS, STRI, AVN, BCT Mod, AMMO), AMC, RDECOM

Delivered SOSE Strategy, Implementation Plans in Mid-September
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 programmatics
- Use SOSE 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 SOSE 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
  - StratComm
  - M&S support to Trades
  - M&S Requirements identification
  - Information Products
  - FY09 SoS SE Trade Studies

- Linked back to processes identified by SOSE, 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 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 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
  • Build upon growing SOS enterprise identity produced by the ESAT workshops
Key Outcomes of the ESAT Process

• Shared mental model for senior leadership group to both integrate (bridge the major seams) and make the enterprise more effective
  • Improved lateral relationships

• Jointly-developed artifacts to assist transformation efforts
  • Enterprise improvement project descriptions
  • Enterprise metrics
  • Communication plan and media

• Analysis artifacts provide record of decision rationale to help disseminate vision and plan
Reflecting on the Experiences with the ME and SOSE ESATs

• Sustaining senior leadership involvement and interest critical to signaling urgency of transformation to the entire enterprise

• Creating shared artifacts brought diverse groups together around common objectives

• Under diverse circumstances, the ESAT process adapted to bring together stakeholders with fairly different perspectives to develop a common vision, purpose, and roadmap for way ahead

• Both efforts stretched the ESAT process/toolset
  • ME ESAT involved existing enterprises in newly-defined formal relationships—a very large and complex enterprise
  • SOSE involved creation of a new function and organization (with few precedents), introduced elements of enterprise architecting

• 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—underestimate social aspects of enterprise change at your own peril
ESAT Process as Enterprise Analysis

• Trading rigor and fidelity of the enterprise characterization…
  • Versus scope—including multiple stakeholder perspectives
  • Versus consensus of the enterprise group
  • Probably does not reveal complex dynamic interactions
  • Good enough to define improvement projects?
    • Projects may employ more extensive/rigorous analysis, including dynamic interactions

• Senior leader time in workshops vs. analytic team time?
• How to capture the clarity of vision (“ah ha” moment) experienced by the (relatively) small group of leaders to disseminate across the entire enterprise?
  • Are projects, policies, etc. sufficient?
• Context has a big impact on priority of process and follow-on—common to any making any analytic intervention stick
  • e.g., Army fighting 2 wars, $25B acquisition budget cut…