Lean Aerospace Initiative
Plenary Workshop

Transition-To-Lean Pilot Project

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Presented By:
Debbie Nightingale
LAI
The LEM is the integrative tool for the products of the LAI Consortium

- The LEM continues to evolve and expand as LAI matures

- Currently, we are focused in three areas
  - Developing Version 2.0: The WEB LEM
  - Adding new ‘lean’ data within existing LEM Architecture
  - Developing Pilot Transition-to-Lean Models
Evolution of
The Lean Enterprise Model (LEM)

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Focus today will be on:
- status of the TTL activity
- illustration of the Enterprise-level conceptual framework
Lean Aerospace Initiative Transition to Lean Module Product Architecture

Enterprise Roadmap

- Priorities
- Sequence
- Key Enablers
- “How-To’s”
- Change Mgt. Principles

Supplier Network

Product Development

Factory Operations Roadmap

Other

Transition to Lean Plan

Product Architecture

- Enterprise Roadmap
- Factory Operations Roadmap
- Other

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Overview of TTL Model Pilot Activity

- Developing Lean Transition Models at Two “Levels”
  - Enterprise Level
  - Factory Operations

- Pilot Project Activity
  - LEM IPT assigned teams to each level
  - Work in process to evolve and populate conceptual frameworks

- Engaged in Co-operative effort with Implementation IPT
  - Assuring that mutual efforts are synergistic
  - Providing for future integration of products

- Phase II Objectives
  - Complete Pilot sufficiently to demonstrate value of pursuing in Phase III
  - Provide further guidance in selecting areas of research in Phase III
What is the Enterprise Level Transition-To-Lean Model?

Begins with a description of a Top Level Flow of primary activities referred to as “The Roadmap”

Then, provides descriptions of key tasks required within each primary activity

Finally, leads discussion of issues, enablers, barriers, case studies and reference material relevant to each task in a common structured framework.
What Will the Enterprise Level TTL Model Provide?

- A robust path that Enterprise Leaders can follow to transition their organizations to a new plateau of “leanness”

- Critical issues, barriers, and enablers to be faced linked to LEM best practices, metrics, case studies and reference material

- Efficient and effective tool that will improve the quality of thinking and awareness of Enterprise Leaders on the challenge of transitioning their organization

- Guidance in making the transition process, itself, a ‘lean’ process.
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**Enterprise Level Roadmap**

**Entry, Short and Long Cycles**

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**Long Cycle**

- Develop Lean Structure and Behavior
  - Assign Change Agents
  - Align the Incentives
  - Adapt Structure & Systems
  - Clarify Roles and Responsibilities

- Focus on the Value Stream
  - Map Value Stream
  - Internalize Vision
  - Set Goals & metrics
  - Identify & Involve key stakeholders

**Short Cycle**

- Implement Lean Initiatives
  - Develop Detail Plans
  - Implement Lean Activities

- Create Enterprise Level plan
  - Prioritize Activities
  - Provide Education and Training
  - Commit Resources

- Focus on Continuous Improvement
  - Monitor Lean Progress
  - Nurture the process
  - Refine the Plan
  - Capture & Adopt New Knowledge

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**Enter Lean Paradigm**

- Build Vision
- Establish Need
- Foster Lean Learning
- Make the Commitment
- Obtain Sr. Management Buy-in

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Common Discussion Framework Is Used

- Discussion of issues
- Six Interdependent Elements of Implementation

As developed by the Implementation IPT

- Enablers
- Barriers
- Related Case Studies
- Further Reference Material
‘Drilling Down’ to an Example of TTL’s Content

The Roadmap

The Discussion Outline

- Discussion of issue
- Six Interdependent Elements of Implementation
  - Enablers
  - Barriers
  - Related Case Studies
  - Further Reference Material

Issues surrounding the task of “Build Vision” during the activity of “Adopting the Lean Paradigm”
Transition to Lean Roadmap

PHASE: Adopt Lean Paradigm
ACTION ITEM: “Build the Vision”

DISCUSSION ISSUES:

• How do you change a vision that the culture has been successful operating with in the past?
• Should this be an internal only or externally influenced process?
• How do you assess the applicability of other successful transformations to your Enterprise?
• How does the lean vision at the Enterprise level tie into other levels of the enterprise?
TENSIONS

What
A “lean” vision

Why
Communicate “lean” enterprise-wide

When
First step in TTL

Where
Enterprise-wide

Who
The Enterprise Leader

How
Learn from successful “lean” implementations

“Build the Vision”
Description template
BARRIERS (Example)
- Lack of knowledge of the lean principles and practices

ENABLERS (Example)
- Learn from other’s who have proven to be successful in implementing lean at the Enterprise level.

CASE STUDIES (Example)
- Jack Welch, CEO- General Electric, is known by his peers as a highly regarded transformer of organizations.

FUTURE RESEARCH QUESTIONS (Example)
- “How important is Executive leadership in the success of lean initiatives?”
Plan For Assessment of Enterprise Level Model

**Enterprise TTL Subtask Team**

Select one ‘task’ within the Roadmap and complete to its ‘fullest’ detail

- Initial review and critique
- ‘External’ Critique of Validity and Utility

**LEM IPT**

- Red Team of Industry & Government Members

**Update of TTL Model**

**Enterprise TTL Subtask Team**

- ‘CEO’ Critique of Validity and Utility

**Recommendation for Phase III Activity**

- LEM IPT