LEAN ADVANCEMENT INITIATIVE

ENABLING ENTERPRISE EXCELLENCE
The Lean Advancement Initiative (LAI) at MIT enables enterprises to effectively, efficiently, and reliably create value in complex and rapidly changing environments.

LAI enables the focused and accelerated transformation of complex enterprises through collaborative stakeholder engagement in developing and institutionalizing principles, processes, behaviors, and tools for enterprise excellence.
LAI Members Share a Common Goal:
Enterprise Excellence
LAI Operating Model

- Enable transformation
- Exchange knowledge
- Measure value

- Conduct enterprise research
- Develop transformation products

- Accelerate deployment
- Engage all stakeholders
- Collaborate to transform

- Collaborate
- Deploy Knowledge
- Enable Enterprise Excellence
- Create Knowledge
Co-Evolving Research, Products and Tools

Legend
- Assessment
- Resource
- Transformation
- Training

1994 - 2012

- Transition to Lean (TTL)
- Lean Enterprise Self-Assessment Tool (LESAT)
- Lean Enterprise Value (LEV) Simulation
- Lean Product Development Value Stream Mapping (PDVSM)
- Product Development Self-Assessment Tool (PDSAT)
- LAI Lean Academies: Enterprise, Healthcare, and Product Development
- Enterprise Architecting Short Course
- UTC – ACE Case Studies

- Supplier Networks Roadmap
- Supplier Networks Desk Reference
- Enterprise Transformation Roadmap

- Systems Engineering Leading Indicators V1
- LAI Facilitator
- Systems Engineering Leading Indicators V2

- Lean Enterprise Self-Assessment Tool (GLESAT)
- Lean Enterprise Strategic Analysis for Transformation (ESAT)
- LAI Enterprise Self-Assessment Tool 2.0 (LESAT 2.0)

- Government Lean Enterprise Self-Assessment Tool (GLESAT)
- LAI Enterprise Self-Assessment Tool 2.0 (LESAT 2.0) Facilitator Guide and Calculator

- Lean Now Workshop
- Lean Enterprise Self-Assessment Tool Facilitator Guide and Calculator
- Lean Academy
- Lean Enterprise Value Short Course

- Lean Enterprise Model (LEM)
- Transition to Lean Guides
- Lean Facilitator
- LAI Facilitator

- Book: “Beyond the Lean Revolution”
- Book: “Lean Enterprise Value”

- Transition to Lean (POTTL)
- Production Operations Transition to Lean (POTTL)

- LAI MIT Enabling Enterprise Excellence

- Government Lean Enterprise Self-Assessment Tool (GLESAT)
- Lean Enterprise Strategic Analysis for Transformation (ESAT)
- LAI Enterprise Self-Assessment Tool 2.0 (LESAT 2.0)

- LAI Lean Academies: Enterprise, Healthcare, and Product Development
- Enterprise Architecting Short Course
- UTC – ACE Case Studies
Lean Enterprise Transformation Roadmap

**STRATEGIC CYCLE**
- **Determine Strategic Imperative**
  - Articulate the Case for Transformation & Convey Urgency
  - Focus on Stakeholder Value
  - Leverage Transformation Gains

**Pursue & Sustain Enterprise Transformation**
- **Engage Leadership in Transformation**
  - Cultivate Enterprise Thinking
  - Obtain Executive Buy-In
  - Establish Executive Transformation Council

**PLANNING CYCLE**
- **Understand Current State**
  - Perform Stakeholder Analysis
  - Analyze Processes & Interactions
  - Perform Enterprise Maturity Assessment
  - Assess Current Performance Measurement System

- **Capabilities & Deficiencies Identified**
- **Envision & Design Future Enterprise**
  - Create Vision of Future State
  - Perform Gap Analysis Between Current and Future States
  - Architect “To-Be” Enterprise

**EXECUTION CYCLE**
- **Implement & Coordinate Transformation Plan**
  - Develop Detailed Project Implementation Plans
  - Synchronize Detailed Plans
  - Commit Resources
  - Provide Education & Training
  - Implement Projects and Track Progress

- **Align Enterprise Structure and Behaviors**
  - Reconcile Systems, Policies & Vision
  - Align Performance Measurement System
  - Align Incentives
  - Empower Change Agents

**Long-Term Corrective Action**
- **Short-Term Corrective Action**

**Alignment Requirements Identified**

**Implementation Results**
- **Nurture Transformation & Embed Enterprise Thinking**
  - Monitor Transformation Progress
  - Nurture Transformation Embed Enterprise Thinking
  - Capture & Diffuse Lessons Learned
  - Adjust and Align Planning & Execution Cycles


http://lean.mit.edu
Quarterly international publication launched in 2011

First four issues focused on:
- Intellectual agenda of enterprise transformation
- Enterprise change and continuity
- Enterprise modeling
- Enterprise transformation in action

Collaboration w/Institute of Industrial Engineers and International Council on Systems Engineering

Editors-in-Chief Deborah Nightingale, LAI, and Ricardo Valerdi, University of Arizona

Managing Editor Nicolene Hengen, LAI
Codifying LAI Knowledge: Book Released August 2011

Prof. Deborah Nightingale and Dr. Jayakanth Srinivasan
AMACOM Press

Structure
- Strategic Context (4 chapters)
- Lenses of Current State Analysis (5 chapters)
- Achieving Transformation (3 chapters)

- Designed for senior leadership, middle management, and graduate students
- Emphasis on the doing of transformation using LAI’s enterprise roadmap
Evidence of LAI Impact on Enterprise Transformation

- Rockwell Collins is an enterprise that has translated “islands of success” into holistic enterprise transformation supported by LAI Knowledge and tools.
- Consistently ranked as the best avionics company by Aviation Week
- ROIC of 30+% is best in class in the aerospace and defense sector

"We see great value in belonging to organizations such as LAI, to network, identify better practice, and as a thought partner. Some of our best ideas were derived from other people who were struggling with their own Lean journey as we were and who were graciously willing to share their successes and their failures."

Clayton Jones, CEO
Rockwell Collins

"Textron Systems’ lean transformation is a journey, and one that has benefited enormously from the resources and assistance provided by the Lean Aerospace Initiative. LAI has offered Textron Systems an important connection among academia, industry, and government that has given our company insight into lean research, practices, tools, and products that we would not have had access to otherwise. Our ongoing journey, though challenging, has been made easier by LAI's one-stop shop for lean research, colleague interaction, and product application."

Richard Millman
President (Ret.)
Textron Systems

"Pratt & Whitney and UTC have been associated with LAI for over 15 years. The research and technologies of this organization will continue to be sought out as guides for the future development path of both industry and the services associated with aerospace."

Thomas Farmer
President (Ret.)
Pratt & Whitney
Membership Benefits

- Early access to research results
- Opportunity to participate in communities of practice
- Opportunity to hire highly trained graduate students
- Email event announcements
- Periodic LAI Research Highlights
- Monthly executive board reports

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