Implementation IPT

Overall:

- A focus on “process” -- cutting across LAI substantive topic areas

Goals:

- Surface, explore and document the implementation implications of lean principles and practices
- Highlight lessons from experience and promote diffusion of innovation across the consortium
- Provide tools to aid implementation initiatives
- Complement parallel LAI efforts
Primary Activities

- **Implementation Workshops**
  - Competitors, customers, suppliers, newly merged partners, labor, and management -- across multiple levels

- **Briefings**
  - Plenary, Executive, within participating organizations

- **Publications**
  - Reports, White papers, Tool kits

- **Implementation IPT**
  - Co-chairs: John Cantrell, WL/MTA; Mike Packer, Lockheed Martin; Joel Cutcher-Gershenfeld, MIT, and additional members from across LAI member organizations
Link to Parallel LAI Efforts

- **Parallel efforts**
  - Transition to lean
  - Communications
  - Focus groups
  - Labor Aerospace Research Agenda and other efforts

- **Linkages**
  - Feeding insights across subject areas
  - Potential for integration of implementation model
Implementation Workshops to Date

- Workshop I: Implementing High Performance Work Systems
- Workshop II: Implementing IPTs in an IPPD context
- Workshop III: Customer and Supplier Integration Across the Supply Chain
- Workshop IV: Flow Optimization Throughout the Value Stream
Workshop IV Highlights

- **Overall insights**
  - Flow principles can be applied in manufacturing, even under conditions of low volume and variable demand -- but fundamental restructuring is required
  - In engineering design -- a flow of ideas rather than products

- **Preliminary dialogue on an implementation model**

- **Doing the numbers**
  - 65 participants, 12 teams, 4 case studies, 2 feature presentations, 1 design simulation, and 6 break-out groups
Boeing 777 Fabrication, Seattle
- Modified flow -- with pull sequencing for capital intensive operations (such as autoclaves)
- Restructuring of performance measurables and communications system to provide appropriate feedback
- Dramatic gains in cost, quality and schedule performance

Northrop Grumman, Rolling Meadows
- Manufacturing flow depends on upstream integration with engineering
- Unexpectedly broad diffusion of flow principles
Lessons from Workshop IV Cases (cont.)

- **Pratt and Whitney, North Berwick**
  - Support system alignment to enable flow
  - Complex human resource issues surfaced by flow implementation

- **British Aerospace, Samelsbury**
  - Work structured to balance process and product foci
  - Development of new costing model, coaching management style and other innovations to support the work system
  - Dramatic gains in cost, quality and schedule performance
Why develop an implementation model?
  - Most implementation efforts fall short of potential
    - Limits of top-down re-engineering or bottom-up process improvement
    - A history of successful pilots but insufficient diffusion
  - A systematic model provides a common language and legitimizes difficult questions
What are the Functional Requirements for an Implementation Model?

- Following the model substantially increases likelihood of success
- Model is easily understood and remembered
- Use of the model reveals insights that would not otherwise be generated
- The benefits of using the model substantially outweigh the costs
- The model is complementary to related LAI initiatives
Consider building on six interdependent core elements *(this is but one of many possible ways to present the elements)*:
Preliminary Insights from Workshop IV

- Danger of focusing on the “what” before clarifying the “why”
- Consistent failure to give full, early consideration to the “who”
- Tendency toward just a top-down or bottom-up approach to the “how”
- “When” typically determined by technical rather than social timeline
- “Where” rarely selected in the context of an enterprise-wide strategic plan
- All six elements are necessary for successful implementation
Next Steps

- Implementation Workshops
  - Workshop V
    - *San Diego Feb. 3 & 4, Marriott Mission Valley*
  - Workshop VI
  - Workshop Reports and related briefings

- Implementation Model
  - Further calibration of draft model with “Communications” and “Transition to Lean” initiatives in LAI
  - Further development of draft model within Implementation IPT, with delivery of model and related analysis by September 1999