

EXPECTATIONS AND GUIDELINES

ROADMAP FOR BUILDING LEAN SUPPLIER NETWORKS

EXPECTATIONS

- (1) **End-Product:** The objective of the teamwork effort initiated at the January 13-14 workshop of the LAI Supplier Networks Research Team is to develop a **common industry reference guide** that can be used by aerospace enterprises to build lean supplier networks. The guide is expected to define the strategic and implementation roadmap for designing, developing and managing lean supplier networks, as well as the methods and tools for executing that roadmap. Ultimately, the guide is expected to be a user-friendly web-based tool that can be readily accessed and used.

The guide is envisioned to represent an important “module” in a projected family of “transition-to-lean” products. The latter include, so far, “Transitioning to a Lean Enterprise: A Guide for Leaders,” (MIT, Alpha Version, December 1999) and “Transition-to-Lean Roadmap: Production Operations Level” (MIT, Final Draft, December 15, 1999). Other products of a similar nature may also be developed (e.g., acquisition, product development, test and space operations). As a “product family system architecture” emerges, we will, of course, take a closer look at interface issues to make sure that these products fit together and can be used in harmony in order to derive maximum implementation benefits.

For now, the design of the end-product is kept at a fairly general level – across all product platforms in a multi-product enterprise environment, and across the various product lifecycle phases (e.g., design and development; production; operations and support). We can address the task of tailoring the product to deal with specific products or programs, or with specific lifecycle phases, at a later point, as appropriate.

- (2) **Timeline:** A “first-stage” expectation is to complete the development of an “alpha version” of the guide by this June. If we can achieve this even earlier, so much the better. We will have a quick review of progress by the respective subteams at the LAI Plenary Conference (March 29-30). At this time, we will make any necessary modifications in the overall roadmap architecture, so that all subteams can then proceed with a somewhat more refined consensus framework.

Please note that at this stage, we are hoping to capture the results of the work accomplished by the respective subteams at our June workshop (more details later), which we can then assemble into a coherent document soon afterwards. Then, as the product is actually used, feedback from its actual implementation can be captured to further refine, enhance, and continuously improve it in an interactive Internet-based environment. The product can be progressively enriched with the addition of new knowledge, methods and tools.

EXECUTION GUIDELINES

The following suggested guidelines are offered to coordinate the efforts of the respective subteams that were created at the January 13-14 workshop:

- (1) **Communication Format:** I would like to suggest we use Word 6.0/95 as a common format. Any extensions (attachments, etc.) involving PowerPoint or Excel documents would be fine as well.

- (2) **Terminology:** For all practical purposes, let's define each major topical area in the roadmap area (e.g., develop strategic plan, implement lean strategy) as *ablock* (i.e., in the sense of an essential building block). Each *block* contains specific *implementation steps*. All *blocks* are linked together in terms of a sequential precedence diagram or as concurrent (or even as spiral) sets of activities; feedback loops connecting them may denote information flows, resource flows or financial flows. Although not yet explicitly defined, similar feedback loops can be envisioned in terms of the interfaces between the lean supplier networks roadmap and the enterprise-level TTL roadmap.

We can review and change these definitions later, as we see fit. For now, the intention is to provide a common working vocabulary.

- (3) **Review and Refine:** Re-examine your subteam's topical area within the context of the overall high-level roadmap (see the separate FEEDBACK document) and determine if your topical area should be in any way modified or kept the same (e.g., in terms of general coverage, specific context, sequence). If any modification is required, affecting the content of another subteam's topical area, please contact that subteam and jointly develop a revised definition of your respective topical areas.
- (4) **Block Definition:** Provide a summary description of your subteam's *block* or topical area (one page or less).
- (5) **Implementation Step Definition:** Give a definition of each implementation step within your *block* or topical area (one or two paragraphs)
- (6) **Implementation Step Description:** For each implementation step:
- (a) Describe (briefly, through a few bullets or sentences) what specific illustrative steps are encompassed within each implementation step
 - (b) Identify prerequisite *input* information that is required and from where that information is obtained
 - (c) Identify what *output* information is generated and to what destination(s) (e.g., blocks, implementation steps) that information flows
 - (d) Identify key applicable performance metrics (predictive, outcome); give illustrative examples, if any (e.g., charts, graphs, tables)
 - (e) Identify major barriers
 - (f) Identify key enablers
 - (g) Highlight important research questions requiring attention
 - (h) List references (e.g., published literature; case studies; examples of "success stories")
 - (i) Indicate linkages to the Lean Enterprise Model (LEM) at the level of overarching, enabling and operating practices
 - (j) Suggest potential linkages to the Transition-to-Lean Roadmap at the Enterprise Level
 - (k) Suggest potential linkages to the Transition-to-Lean Roadmap at the Production Operations Level

- (1) **Glossary:** Provide a definition of special terms used by your team

- (2) **Abbreviations/Acronyms:** Give a list of the abbreviations/acronyms used by your team and indicate what they mean.

RESOURCE MATERIAL

The following resource material is appended for your use (separately attached):

- (1) “Lean Practices and Metrics: Supplier Systems and Relationships – Defense Aircraft Industry” (LAI, April 2, 1995).
- (2) “Transitioning to a Lean Enterprise: A Guide for Leaders” (MIT, Alpha Version, December 1999) – NOTE: This document is now under revision; a revised edition is expected to be made available at the LAI Plenary Conference (March 29-30) ; for now, selective parts are attached for your information and reference.
- (3) “Transition-to-Lean Roadmap: Production Operations Level” (MIT, Final Draft, December 15, 1999)