

## INFORMATION PAPER ON FRAMING ASSUMPTIONS

**Why Create and Track Framing Assumptions:** To inform acquisition leaders about key program assumptions, stimulate discussion of their validity, and establish a context for program assessments.

**Definition:** A *framing assumption* (FA) is any supposition (explicit or implicit) that is central in shaping cost, schedule, or performance expectations of an acquisition program.

- A program generally should have a small number (3-5) of FAs with the following attributes:
  - *Critical:* Significantly affects program expectations.
  - *No work-arounds:* Consequences cannot be easily mitigated.
  - *Foundational:* Not derivative of other assumptions.
  - *Program specific:* Not generically applicable to all programs.

**Who:** FAs are created and “owned” by the PM and reviewed and approved by acquisition leaders.

**When:** FAs should be presented at Milestone (MS) A and B reviews. MS A FAs should be re-evaluated at MS B to account for program changes.

**Where:** FAs and their status should be included in DAB reviews and DAES reports.

**How:** PMs should identify FAs, continuously monitor their validity and use them in assessments.

- In developing FAs, PMs should ensure they consider suppositions that are commonly believed to be true. When suppositions assumed true are in fact false, grave consequences may result.
- To use FAs as a management tool, PMs should identify associated Implications, Expectations, and Metrics. A format for presenting such information at DAB Reviews is shown in Atch 1.
- The validity of each FA should be monitored by tracking Metrics, Expectations and Implications during program execution.
- Because an invalid FA likely has multiple implications, FA tracking may provide early warning of unanticipated risks or issues.

**Sources:** Examples of good and bad FAs are provided in Atch 2. Some sources of FAs include:

- Technological and engineering challenges
- Cost, schedule and requirements trade-offs
- Effectiveness of program-specific managerial or organizational structures (particularly for joint or combined programs)
- Suitability of contractual terms and incentives to deliver specific expected outcomes
- Interdependencies with other programs
- Industrial base or market or political considerations

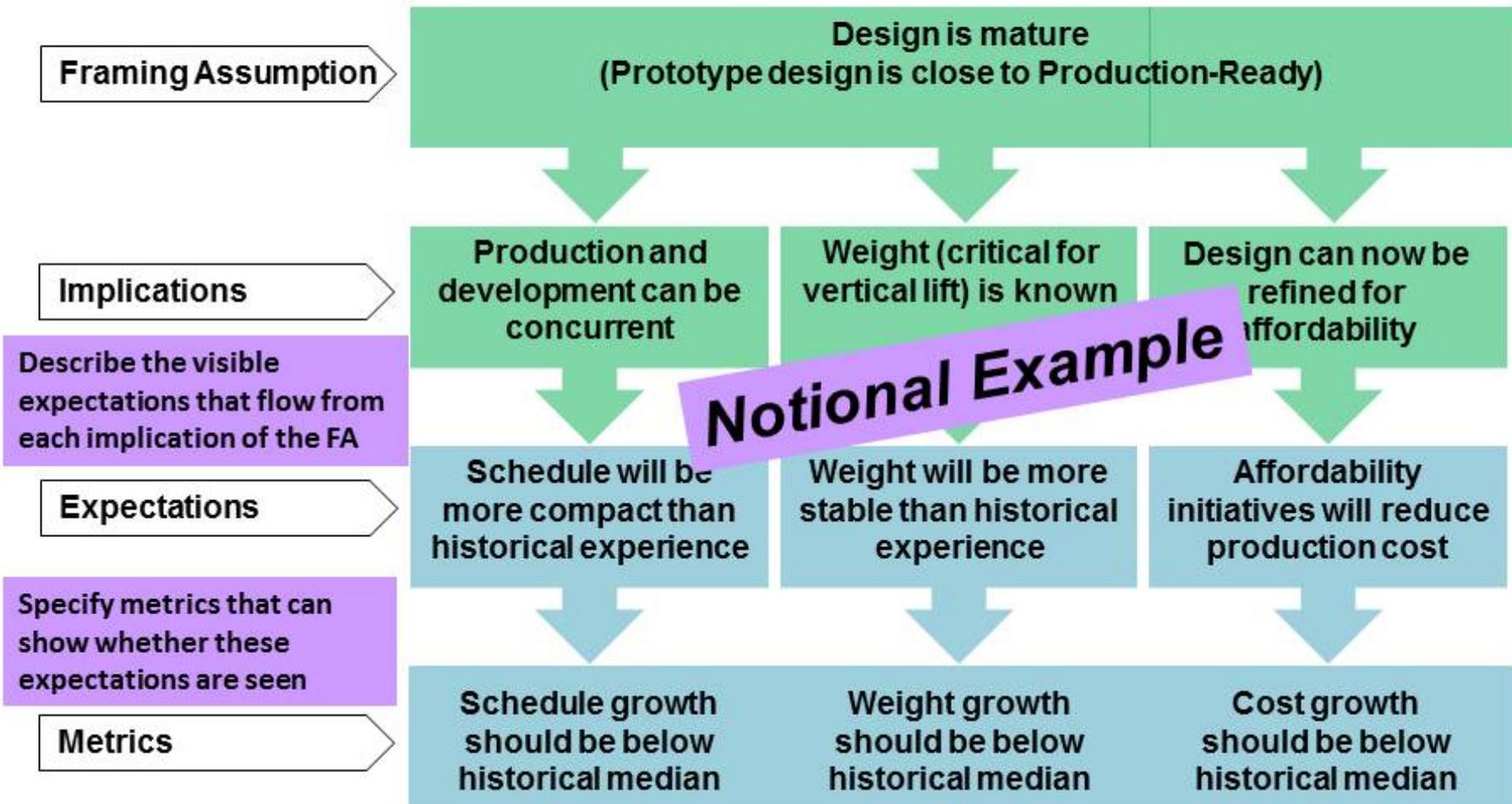
Attachments:

1. Framing Assumptions Briefing Slide Format
2. Example Framing Assumptions

# Framing Assumptions

The PM and PMO team should develop the program's Framing Assumptions, generally prior to MS B, and track the validity of the FAs by assessing relevant program metrics.

Show implications, expectations and metrics for each key framing assumption (FA). There should only be few FAs (3-5); each should have these properties: cause major consequences, have no simple work-around, be uncertain at this point, be program-specific (not generic, like funding stability or good contractor performance), and be a fundamental assumption that affects management decisions.



## EXAMPLE FRAMING ASSUMPTIONS

**Good Examples.** For an assumption to be central to a program's cost, schedule or performance expectations, it should have been considered and assumed true (explicitly or implicitly) during development of the program's requirements, cost and schedule estimates, and Acquisition Program Baseline (APB). Whether a FA is applicable to a specific program depends on whether it is inherent to the program's Acquisition Strategy and procurement environment. Following are some examples:

- Legacy performance requirements are adequate for this system.
- Threat levels will not significantly change in the next X years.
- Requirements will be relaxed as necessary to achieve cost and schedule goals.
- Development of X technology will achieve required performance levels.
- X, Y or Z sub-systems (or other integral components) can be developed independently.
- Re-use of X legacy components or Y subsystems will meet requirements and reduce cost.
- COTS or other NDE items can be easily adapted and/or integrated to meet needs.
- The mission equipment package configuration won't change during EMD.
- The prototype design is very close to production ready and will require few changes.
- System will be X (e.g., non-developmental, commercially derivable, COTS/GOTS based, etc.).
- The cost estimate based on X analogy is applicable to the EMD contract winner.
- Competitive prototyping will represent the end solution, reduce risk, and reduce unit cost.
- Contractors will offer mature designs that allow prototypes to be delivered in X months.
- Open system architecture and available technical data rights allow for competition.
- Carrying two contractors during EMD will reduce risk and lead to lower unit production costs.
- Down-selecting to a single EMD contractor will lead to lower costs and acceptable risk.
- Competitive environment will be maintained through X (e.g., EMD, LRIP, FRP, etc.).
- Commonality between variants will be at least X%.
- The government has sufficient knowledge and expertise to act as system integrator.
- Delay or cancelation of X, Y, or Z interdependent programs will not delay (or negate need for) this program.
- The X program will achieve IOC in time to use the systems procured by this program.
- Peculiar or specific management or organizational structure (contractor or government) will not lead to program delays or cost increases.
- Legal, diplomatic or political issues will not delay or prevent X, Y, or Z (e.g., EMD start, contract award, site selection, fielding schedule, etc.).
- Significant purchases by joint, interagency, or international customers will reduce unit cost.
- Significant commercial demand for this class of product will reduce unit cost.
- Commercial production at contractor's facility will not drop below X% of current levels, keeping overhead costs manageable.
- Commercial production facility can be adapted to meet program's needs at projected costs.
- Program Office can resolve competing priorities of different Services on joint programs.

**Bad Examples.** FAs should be program specific—not generic assumptions that could be applicable to all programs. FAs should also not be facts—they should be uncertain postulates whose validity will generally be ascertained during program execution. Examples to avoid include:

- Cost (or Affordability), schedule, and/or performance goals can be achieved.
- Adequate funding will be provided.
- Requirements will remain stable.
- Capability is achievable (i.e., technologically feasible).
- The contractor and government program office will perform well.
- The operational need for the system will remain valid throughout its service life.
- The system will not be prematurely supplanted by advanced technology.
- Incremental development will lower program risks and/or costs.
- System deficiencies will be identified and fixed during testing.
- The system will be effective, suitable, and survivable.