



Enterprise Agile Acquisition

Issues and Some Suggested Solutions

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Issues

- **Policy impediments to enterprise agile acquisition**
- **Restructuring oversight to remove impediments to doing agile while retaining MDA ability to exercise fiscal responsibility**
- **How to create and structure a contract vehicle that works with (1) uncertain requirements, (2) an evolving cost estimate initially based on past performance, and (3) an incentive structure making the agile environment attractive to contractors**



Agile Environment

The Agile framework includes several interrelated elements:

Development teams producing one or more functional capabilities

Maturity assessments for each functional capability under development

Flexible architecture that supports capability change

Dependency analysis for prospective capability components

Team of assessors testing and packaging evaluation deliveries

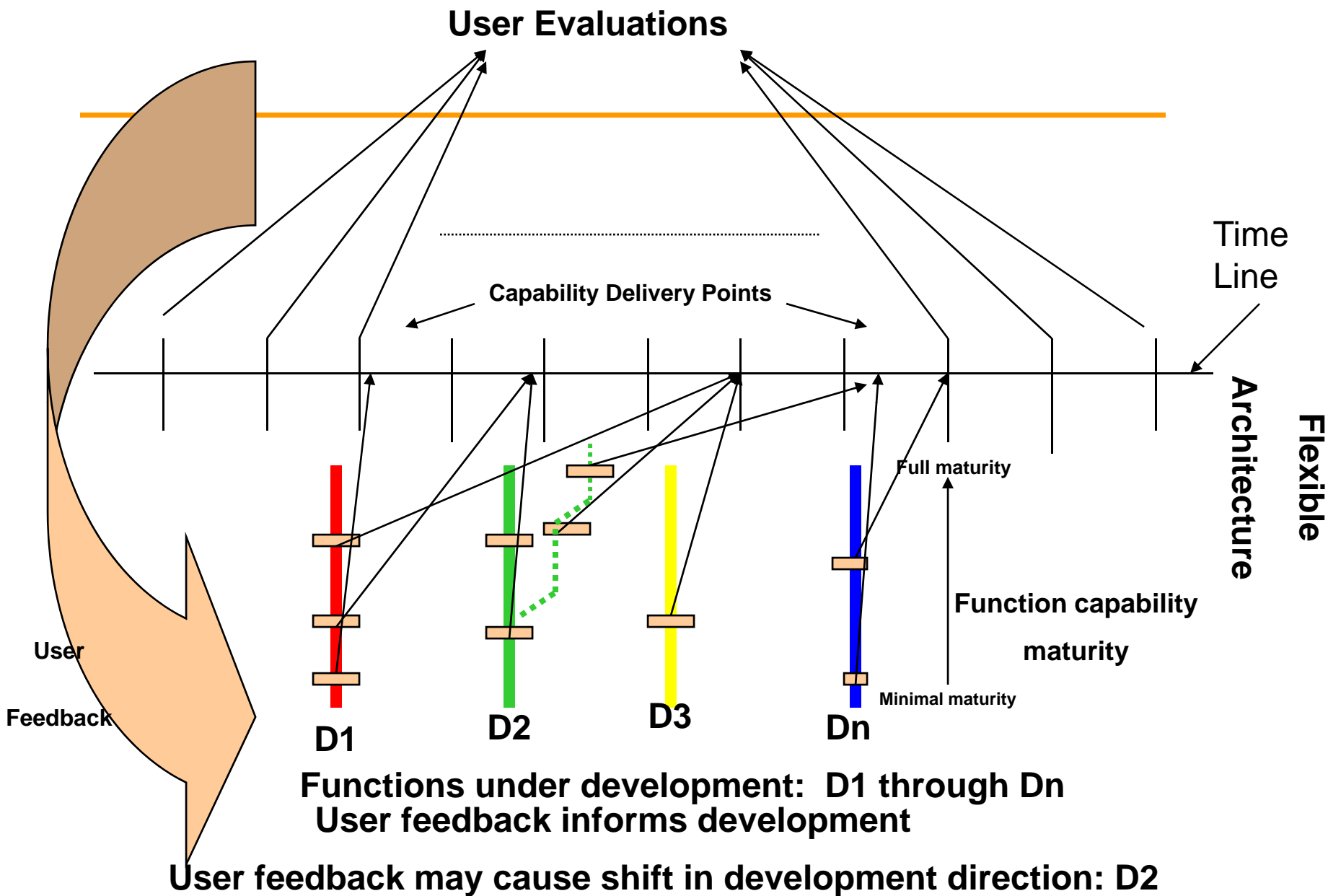
Users who evaluate the deliveries and provide feedback

System engineers who use the feedback to modify requirements

Developers who use feedback to make capability modifications

Iterative process that continues until full delivery

Depicted graphically on next slide





Policy Impediments

- **DoDD 5000.1, par E 1.4, E 1.5, and E 1.6 demand cost realism, and require, prior to program initiation, independent cost estimates based on user-approved functional requirements.**
- **DoDD 5000.1, E 1.16 requires the development of performance-based requirements prior to program development.**
- **DoDI 5000.2, 1.3 implies that system requirements must be defined in advance of program initiation for weapon systems and Automated Information Systems (AIS).**
- **DoDI 5000.02 provides for an RFP to be issued in both the Technology Development phase and the Engineering and Manufacturing Development phase, and technology maturity must be demonstrated in a relevant, preferably operational, environment during the Technology Development phase before it can be considered mature enough for inclusion (Enclosure 2, Section 5).**



Policy Impediments

- **For DoD programs under DoDI 5000.2, the System Development and Demonstration (SDD) phase (Section 3.7) is the primary place in the acquisition cycle where Agile Acquisition is appropriate. The entry requirements for SDD include approved functional requirements (par 3.7.2).**
- **This requirement is also partially reflected in DoDI 5000.02, Enclosure 2, paragraph 5.c.7(a). In addition, 5.d.4 requires that “Technology developed in S&T or procured from industry or other sources shall have been demonstrated in a relevant environment or, preferably, in an operational environment to be considered mature enough to use for product development.” This is to occur during the Technology Development phase, prior to Milestone B.**



Policy Impediments

- **ODNI has issued policy directives and guidance documents ICD 105 and ICPG 105.1 (now 801 and 801.1). Based on an interpretation of Title 50, Section 415a-1, of the US Code, ICD 105 requires that during Milestone A an Independent Cost Estimate (ICE) must be produced by the Cost Analysis Improvement Group (CAIG), and that a program is to be funded to the ICE.**
- **ICD 801 and ICPG 801.1 also require an ICE with a reasonable degree of accuracy for the completed system.**
- **DoDI 5000.2, Table E3.T1 states that for an MAIS the CAIG ICE is not required, citing as authority Title 10 USC 2434. DoDI 5000.02 states in Enclosure 4, Table 2-1, that an economic analysis is required by Section 811 of Public Law 106-398, but does not require an ICE.**
- **We need waivers to the impediments, while providing alternatives to cover the risks the impediments were intended to protect against, but do not do very well.**



Oversight Considerations

- **If an Agile Acquisition Strategy (AAS) is employed in an enterprise system with a high degree of requirements uncertainty, the requirements are defined and refined as the program is developed, and the cost estimate is therefore continuously refined as the program is developed.**
- **This is not a familiar environment for many oversight personnel either within the acquisition organization or in Congress.**
- **The person responsible for funding a program wants to know precisely what functionality is going to be provided before allocating the funds. On the surface, this is not unreasonable.**



Oversight Considerations

- **The Milestone Decision Authority (MDA), conducts several formal reviews to assess whether they should allow the program to proceed to the next acquisition phase. This is also not unreasonable.**
- **Our challenge is to provide the oversight personnel with the insight and high visibility needed to understand the actual status of development, and sufficient understanding of the cost profile so they can make an informed decision on whether the program should be allowed to continue, without impeding the agile development process.**



Oversight Considerations

- **A solution is to provide a higher degree of oversight visibility into the Agile Acquisition process so that oversight can remain comfortable with the extent of user involvement in the requirements refinement, as well as assurance of the user agreement with, and acceptance of, what is being developed.**
- **This can be achieved with a series of visibility reviews instead of milestone reviews, which can be extensions of or in addition to the ITAB reviews described in DoDI 5000.2, 3.10.3 and DoDI 5000.02 Enclosure 2, Section 9.c.**
- **These visibility reviews can also include an updated cost analysis, projecting the cost for the remainder of the development.**
- **While this may seem unusual, and may even be initially uncomfortable for some in the oversight role, consider that when using tradition acquisition processes, as many as one-third of the software intensive systems are developed but never fielded.**



Contracting

- **We need a contracting solution that provides for and addresses six components:**
 - - **Waivers for the parts of DoD and DNI policy that inhibit doing agile for an enterprise**
 - - **Substitute a new kind of review scheme that lets the agile process happen while retaining the MDA visibility and ability to exercise oversight authority.**
 - - **The kind of RFP structure to which a contractor can respond without having to have detailed functional requirements.**



Contracting

- - A way to submit a meaningful cost proposal while accepting that it will change as requirements are refined during development; perhaps based on past performance.
- - A way to terminate the contract if user feedback indicates the product will not be acceptable, without paying high termination fees or imposing onerous contractor penalty.
- - A way to incentivize the contractor to make working in the agile environment attractive.



Summary

- **The policy issues can be dealt with**
- **The oversight issues will take a lot of education and clearly must provide the fiscal safeguards the policies are trying to provide, but this can be done**
- **The most difficult will be to create the type of contract type and vehicle that will satisfy all 6 needs as described above, and convince the government it is a viable and low risk approach**