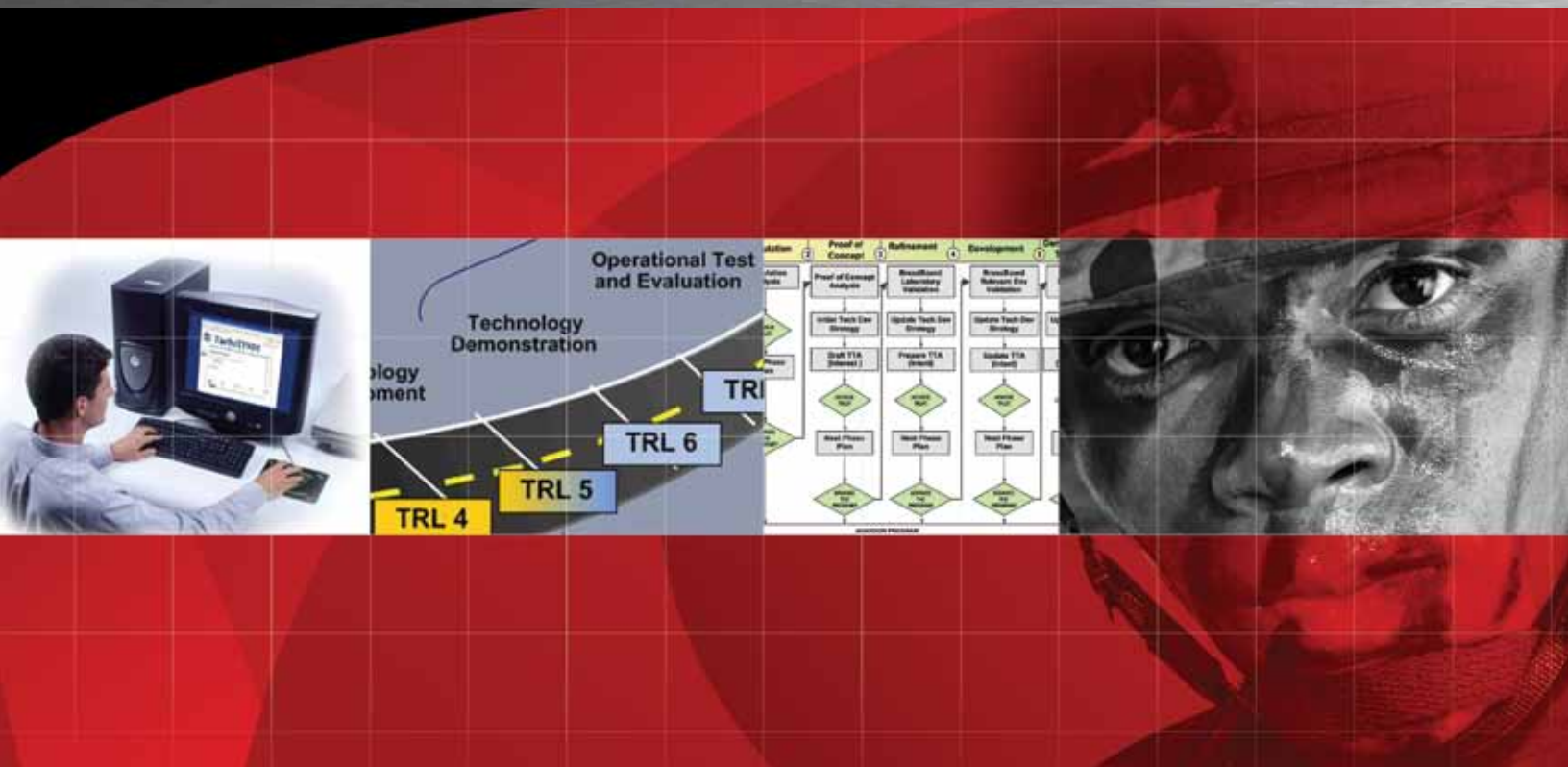




TPMM

Technology Program Management Model



Summary

- Strengthens Technology Program justifications to increase customer acceptance and funding support
- Facilitates review and prioritization among Technology Programs in a constrained resource environment
- Enhances documentation process to support the nomination process or transition to an acquisition program
- Improves program execution through detailed management planning with emphasis on cost, schedule, and performance goals
- Increases efficiency and effectiveness of the technology development process

TPMM is a logical, systems engineering-based methodology that provides essential support to technology managers through the planning, development, and assessment of their technology projects.

TPMM provides its users with a standardized approach to technology development using a systems engineering and programmatic-based process gated by defined Technology Readiness Levels (TRLs). TPMM is a high-fidelity activity model that provides a flexible management tool to assist TMs in planning, managing, and assessing their technologies for successful transition. The model provides a core set of activities that are tailored to the technology development and management goals of each program. This approach is comprehensive, yet it consolidates the complex activities that are relevant to the development and transition of a specific technology program into one integrated model.

Technology programs and projects must be carefully managed to ensure that technologies are delivered to the customer not only within the time and budget constraints, but also that they provide increased capabilities to meet the needs of the Warfighter. The purpose of the TPMM is to provide a logical methodology to guide technology managers (TMs) through the planning and development of their programs or projects. To accomplish that, the TPMM standardizes planning, programming, documentation, systems engineering, and review of technology programs/projects (hereafter simply Programs). The TPMM assists the TM in assessing military utility early in the process. These assessments help identify potential customers who become involved earlier and maintain involvement throughout the entire process. The TPMM provides a mechanism for planning the transition of technologies to a customer, program manager, or into an acquisition program.

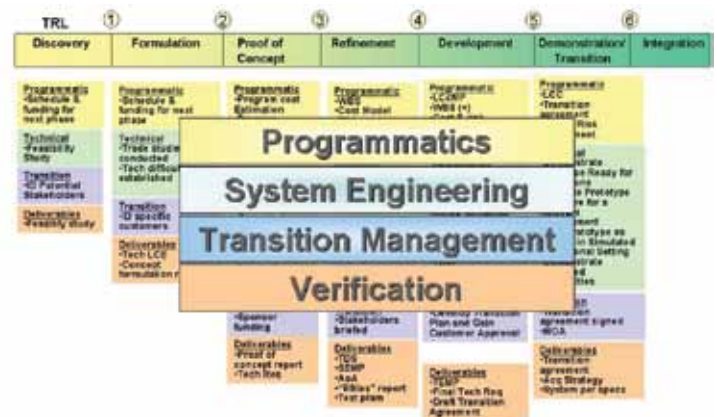
have been identified consistent with the current level of technology maturity. Finally, to align with a transition partner, formal transition agreements and development strategies are established that make clear commitments for timing the delivery of what, when, and how the technology will transition. Therefore, the TPMM is applicable from the earliest stages of applied research to transition into an acquisition program. The Department of Defense 5000-series acquisition management framework divides the acquisition lifecycle into five distinct stages. The Science and Technology community is generally involved only in the pre-systems acquisition stages of this framework, or the Concept Refinement and Technology Development stages. In general, these stages correlate loosely to TRLs 3-6. The TPMM, however, has a broader range of application, beginning prior to TRL 1 and continuing up to TRL 6.

The model offers many benefits and is an excellent resource for facing future challenges and producing positive results, ultimately, for the soldier.

In summary:

- TPMM is a technology-development activity model, partitioned into phases that are gate-qualified using TRLs.
- TPMM is a best practice standard that expands TRL understanding to include detailed activities, exit criteria, and deliverables.
- TPMM is a toolset used by the TM to plan, guide, and measure a technology program's development maturity.
- TPMM is an alignment mechanism that promotes early focus on transitioning the technology to acquisition program customers.
- TPMM acts as a common yardstick and provides the Office of the Secretary of Defense with the criteria for evaluating the Technology Development Strategy at Milestone A.
- TPMM provides a standard TRL criteria set for performing effective Technology Readiness Assessments at Milestone B.

The TPMM also helps counter the typical paradigm of behavior in Technology Programs (where transition is not a high priority) by stressing Transition Management activities earlier in the development cycle. A formal assessment process attempts to prevent the technologist from tinkering indefinitely. It also ensures that the performance goals



For more information, please contact:
 USASMDC/ARSTRAT Public Affairs Office
 P.O. Box 1500
 Huntsville, AL 35807
 Phone: 256-955-3887
 Fax: 256-955-1214
 Email: webmaster@smdc.army.mil
www.facebook.com/armysmdc
www.twitter.com/armysmdc
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