

Technology Transition Workshop Assessments & Recommendations


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***S&T Affordability Conference
26 October 1999***

Agenda

- **Today's ATD Transition Status**
- **Workshop - Goals, Results & Recommendations**
- **Summary**

The Need



“We will prioritize solutions which optimize smaller, lighter, more lethal, yet more reliable, fuel efficient, and more survivable options. We will seek technological solutions to our current dilemmas. ... with the right technological solutions, we intend to transform the Army...”

-- GEN Shinseki, CSA

October 12, 1999

How is the Army Doing in Transitioning Technology?

30 ATDs
COMPLETED
(1993-1999)

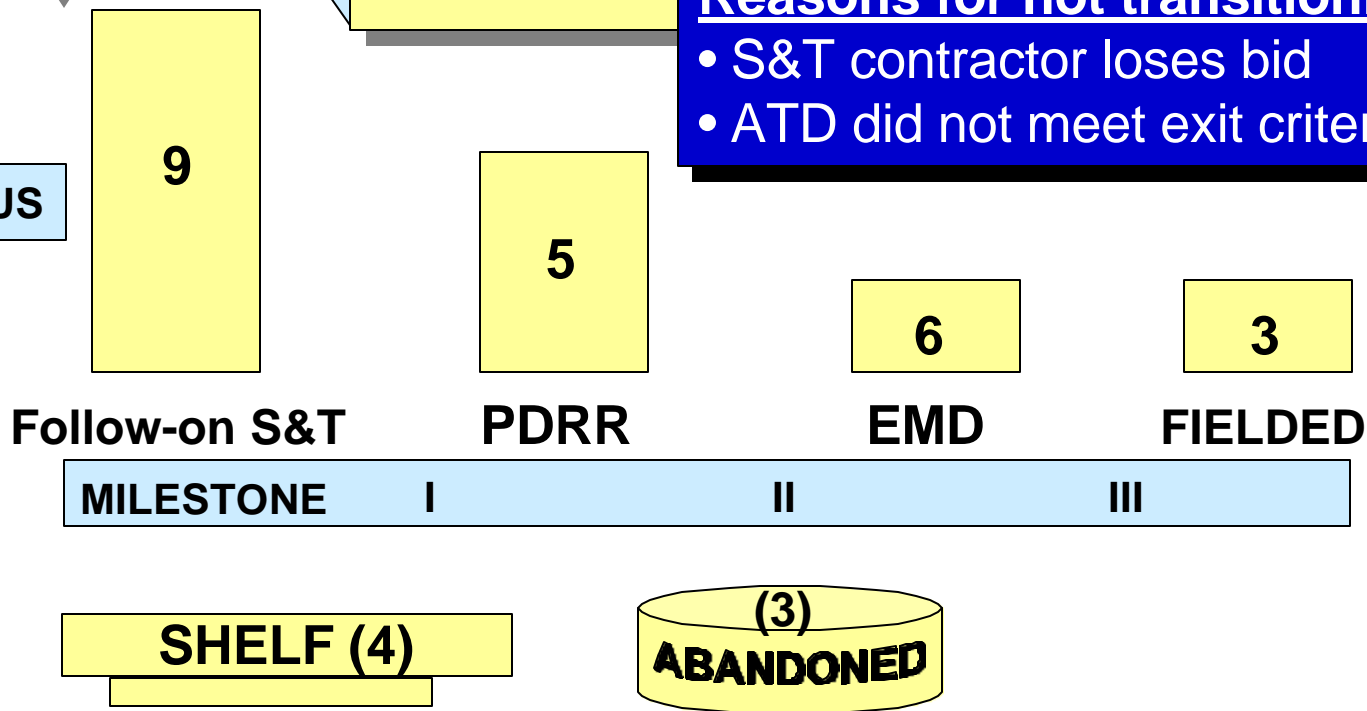
47% Transitioned

- 33% - Same Contractor to Development
- 40% - Established strong Relationship with PM

Reasons for not transitioning:

- S&T contractor loses bid
- ATD did not meet exit criteria

STATUS



Transition Workshop Goals

- *Enhance partnership between the acquisition, S&T, and industry communities to improve transition*
- *Develop successful practices and provide proposed guidelines to positively influence technology transition and insertion*
- *Provide critical information exchange in an engaging, working environment so that all can benefit and learn*

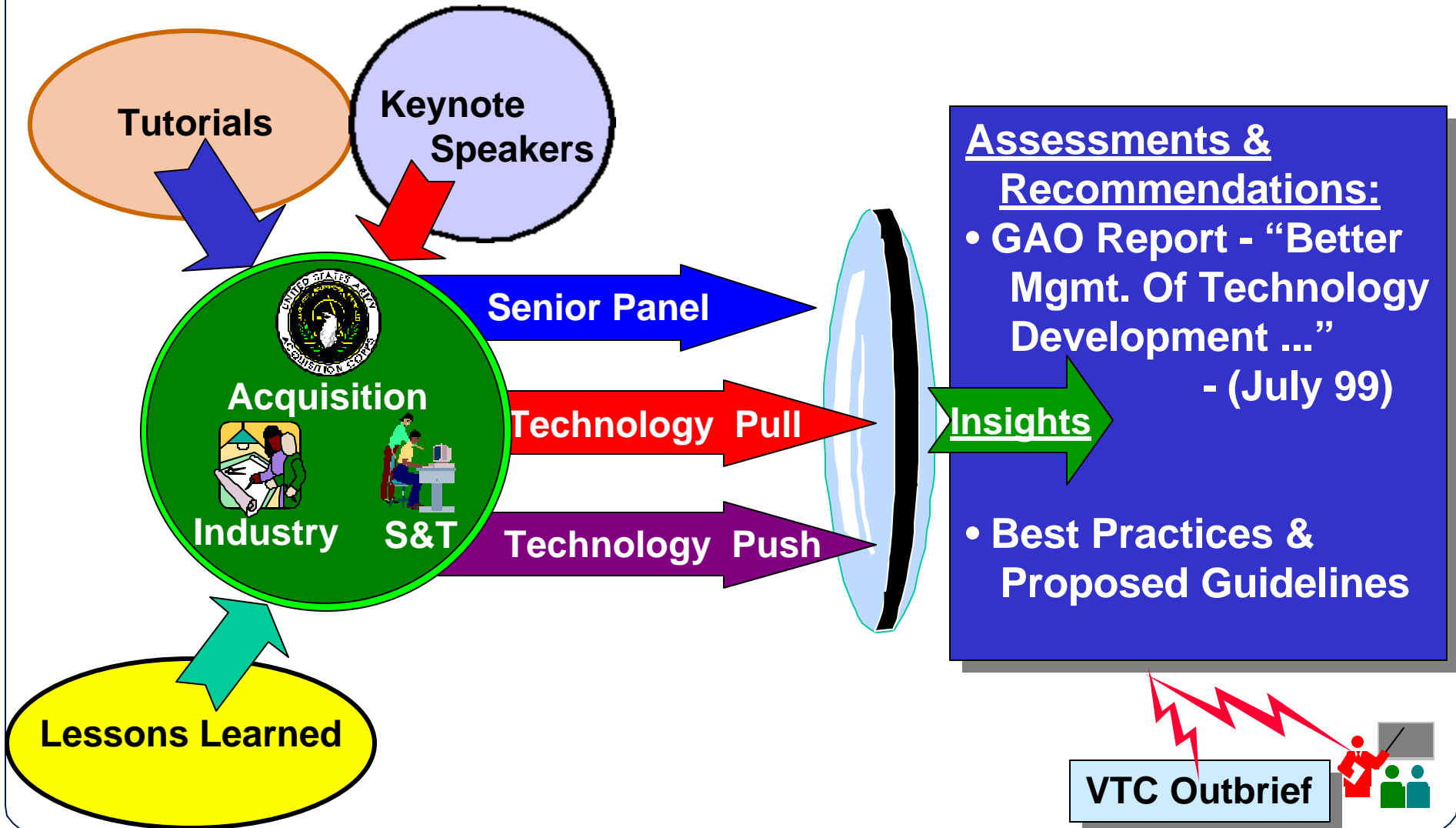


Workshop Results

- Our Process is Sound**
 - **Implementation is key**
 - **Strengthen guidance and execution**
- Develop a common assessment tool for technology maturity**

Workshop Process

27- 29 September 1999



Participants

Acquisition (29)

- PEOs
- DSAs
- PMs

Others (23)

- TRADOC
- ONR, AMC
- USC, DOE
- DARPA

Science & Technology (40)

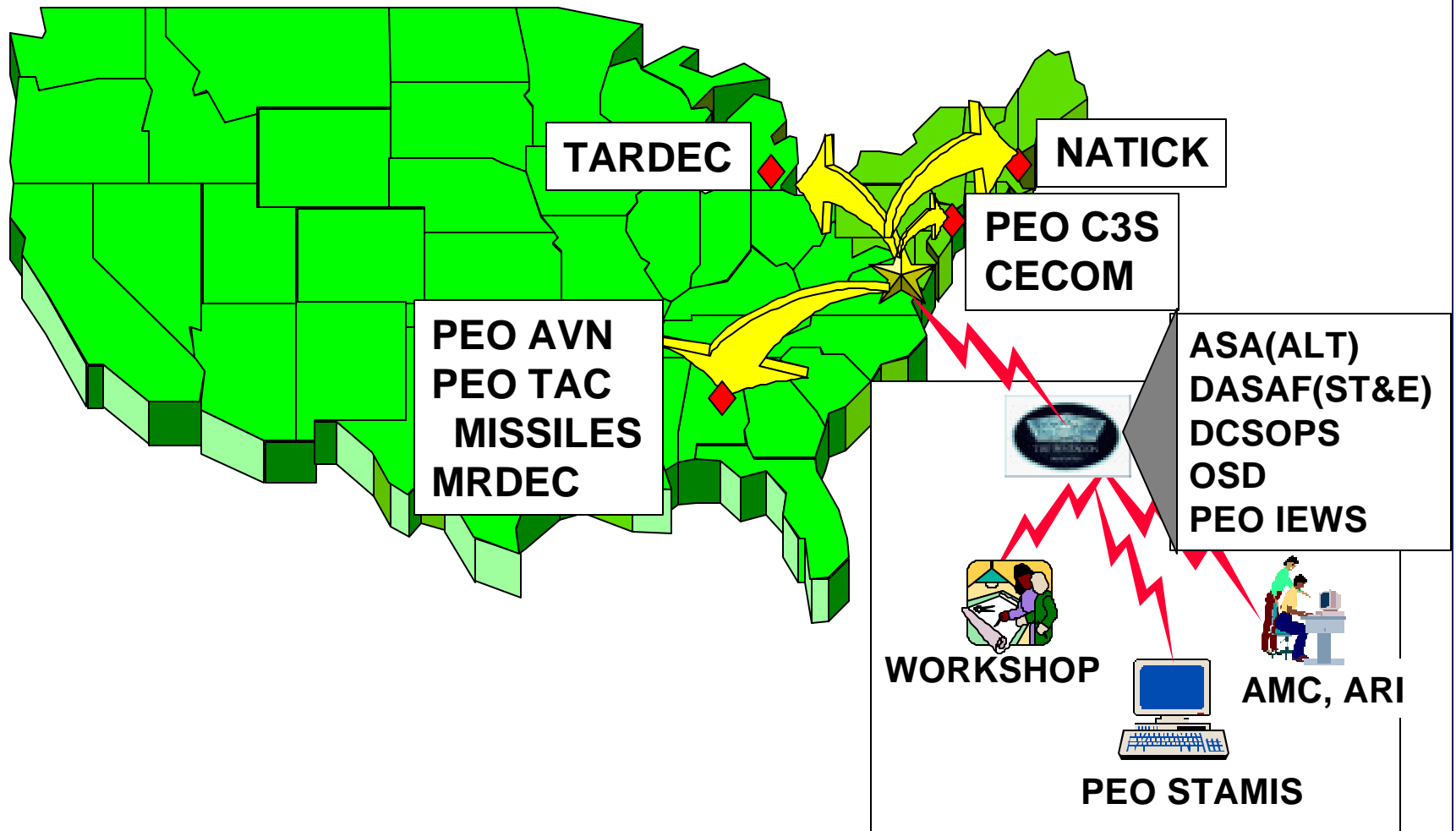
- ARDEC
- AMRDEC
- CERDEC
- TARDEC
- Natick
- ARI
- ARL
- Corps of Engineers
- MPMC
- ACTD Managers (12)
- ATD Managers (17)

Industry (21)

- UDLP, SRI
- Delco, ITT
- Raytheon
- COLSA
- Harris Corp
- Allied Signal
- Motorola
- Allison
- Boeing
- Lockheed-Martin
- Bell Helicopter
- TRW
- Qualcomm
- GDLS
- Oshkosh

113 Players Supported the Workshop

VTC Outbrief



GAO Report

**“Better Management of Technology Development Can Improve
Weapon System Outcomes” - (July 99)**

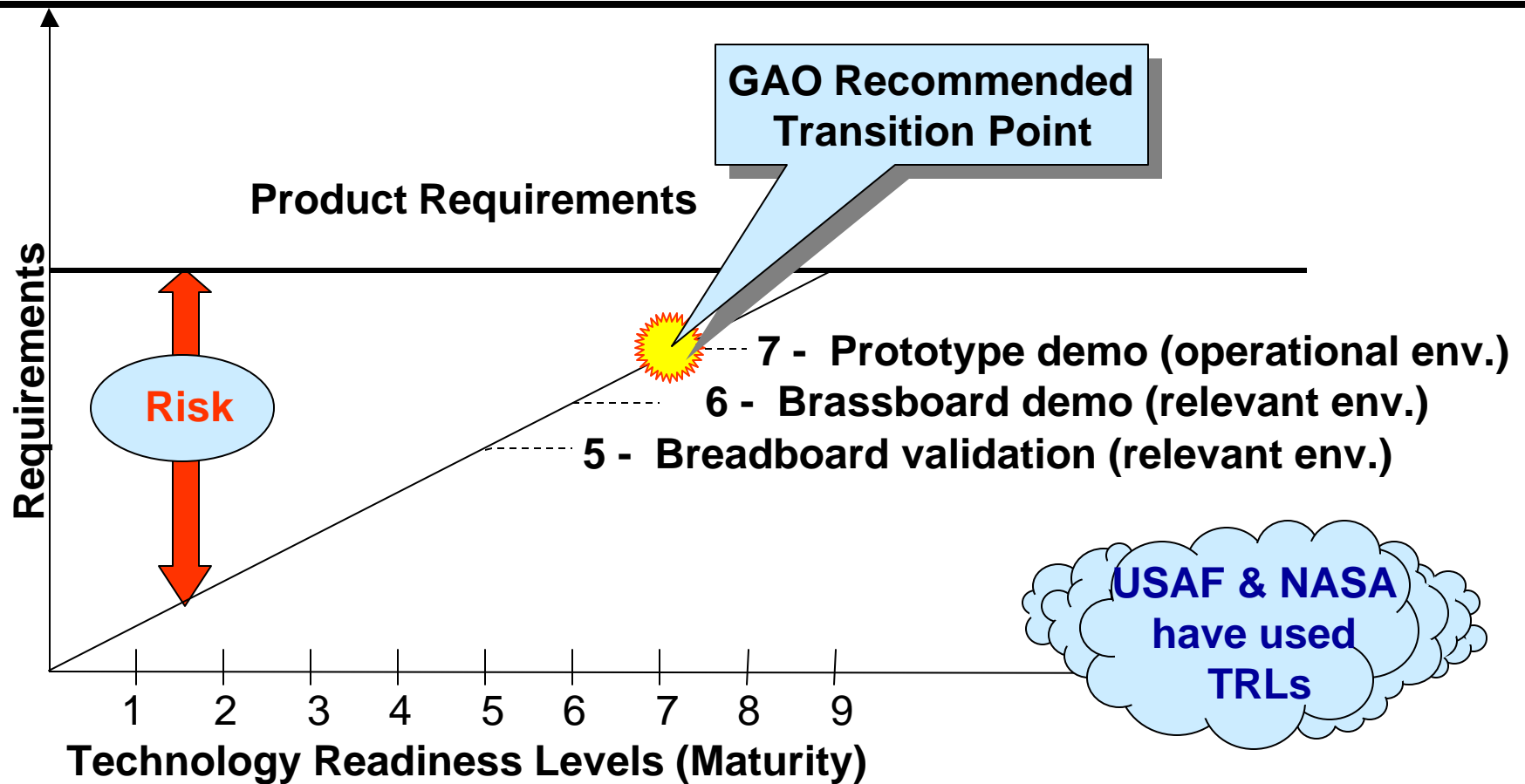


BOTTOM LINE -

Mature Technology Prior to Acquisition is a Key Success Factor

GAO Report

Technology Readiness Levels (TRLs)



Recommendation: “... that the Secretary of Defense adopt a disciplined and knowledge-based practice for assessing technology maturity, such as TRLs, DoD-wide.”

GAO Report

Senior Panel Assessments & Recommendations

<u>Concur</u>	<u>Partially Concur</u>	<u>GAO Recommendation</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1: Adopt Common Assessment Tool for Technology Readiness Level, e.g., Technology Readiness Levels (TRLs)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2: Require technology to reach a high maturity level prior to weapon system development
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3: Provide flexible environment suitable for discovery of knowledge prior to beginning of product development
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4: Evaluate ways for S&T to play a greater roll in maturing technology prior to product development
<input checked="" type="checkbox"/>	<input type="checkbox"/>	5: Assess whether resources needed for S&T to develop technology detracted from basic research
<input checked="" type="checkbox"/>	<input type="checkbox"/>	6: Empower PMs to reject immature technologies

Best Practices and Proposed Guidelines

Three Panels



- Technology Push
- Technology Pull
- Senior Panel

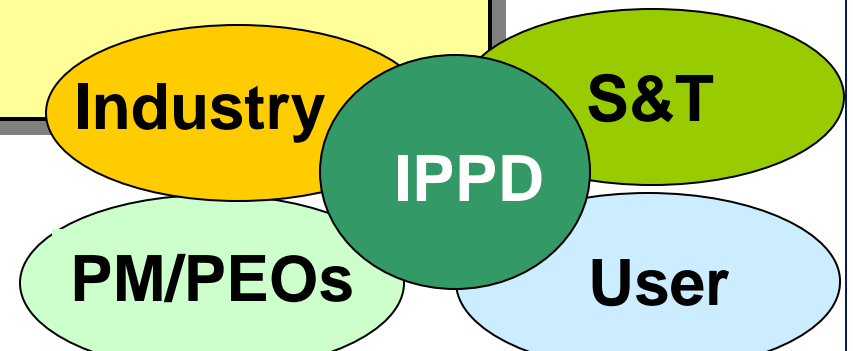
53 Recommendations

- Communication
- Mgmt Tools
- Transition Plan

Workshop results sharpen our transition planning

Communication is Key

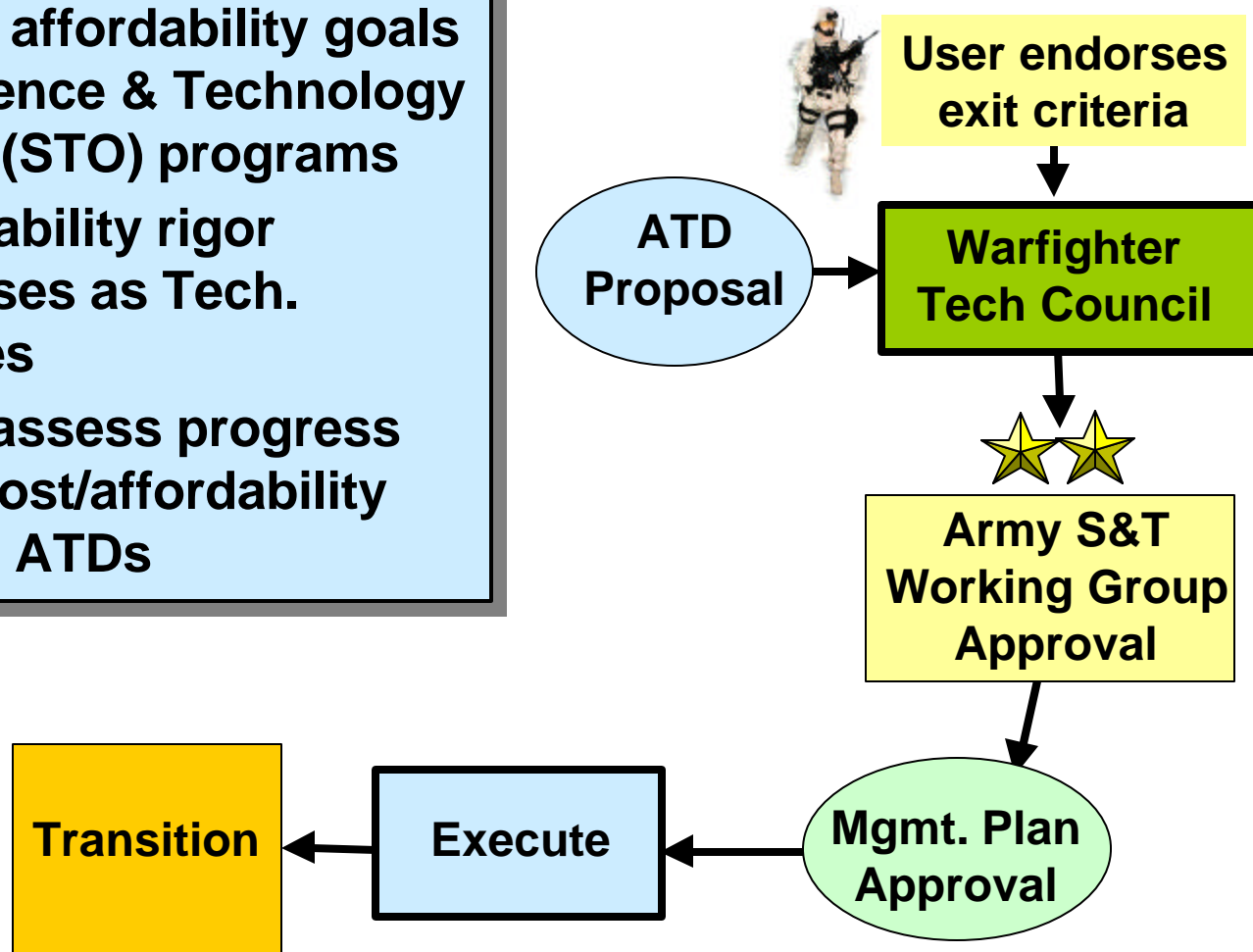
- IPPD works, but implementation is where the payoff occurs
 - Require annual review and approval of ATD's IPPD plan at Warfighter Technical Council
 - Must include budget
 - Must Include team training
 - Must include accountability criteria for performance appraisals
 - User MNS, ORDs, etc., should be described as capabilities, not specifications



Workshop - a great first step in improving communications

Management Tools

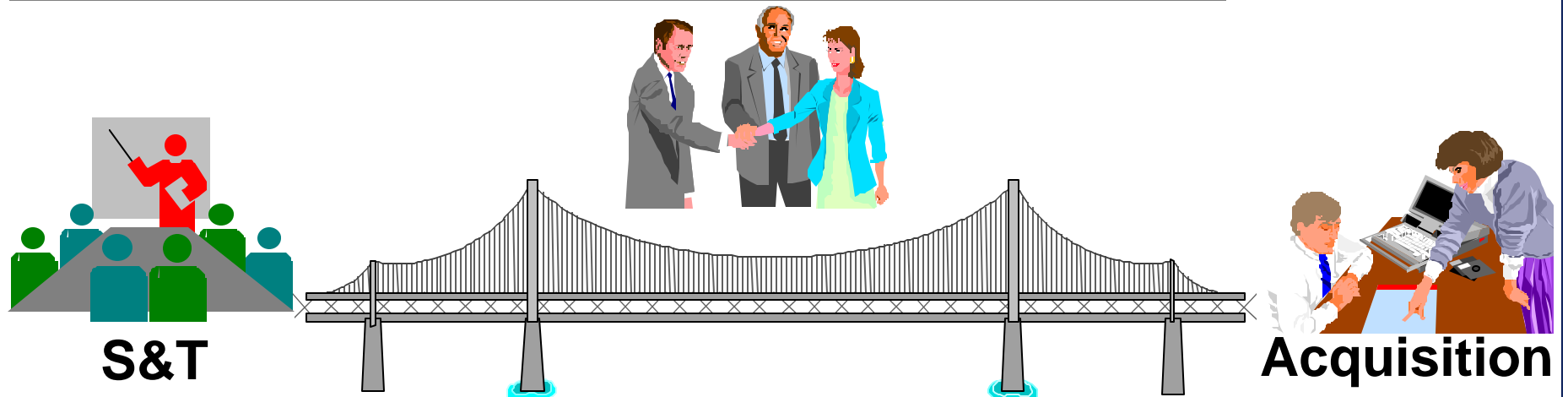
- Formalize affordability goals for all Science & Technology Objective (STO) programs
 - ↑ Affordability rigor increases as Tech. Matures
- Annually assess progress towards cost/affordability criteria in ATDs



Management Tools (Cont.)

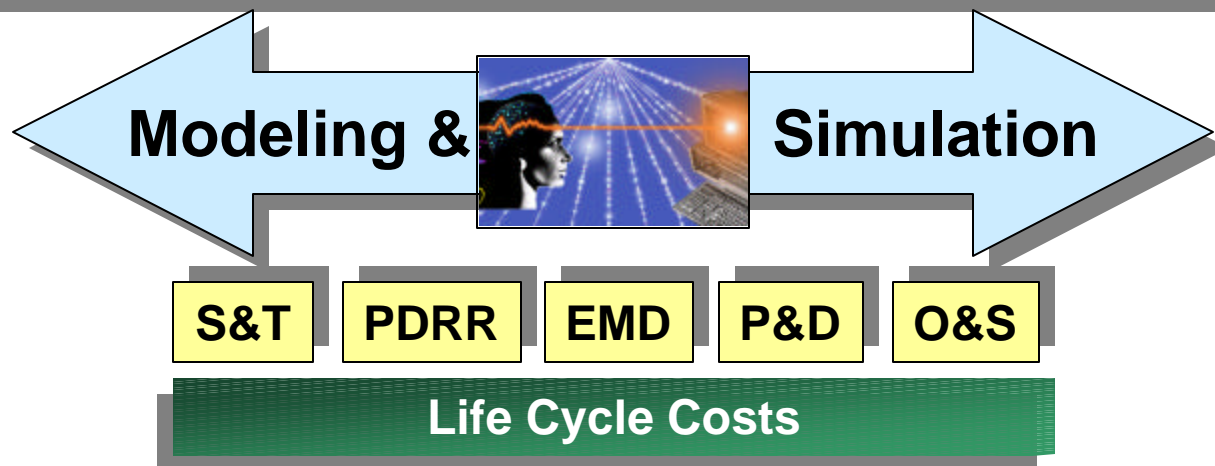
Review/ Coordinate Personnel Initiatives for S&T and Program Management

- Define Training Rqmts & Criteria for ATD Managers
 - Require minimum training
- Develop personnel rotation incentives between S&T and PM communities



Management Tools (Cont.)

- **Require Simulation Support Plan for all STO nominations at Warfighter Technical Council**
 - Developed as part of IPPD process
 - Supported by major stakeholders
 - Must include funding



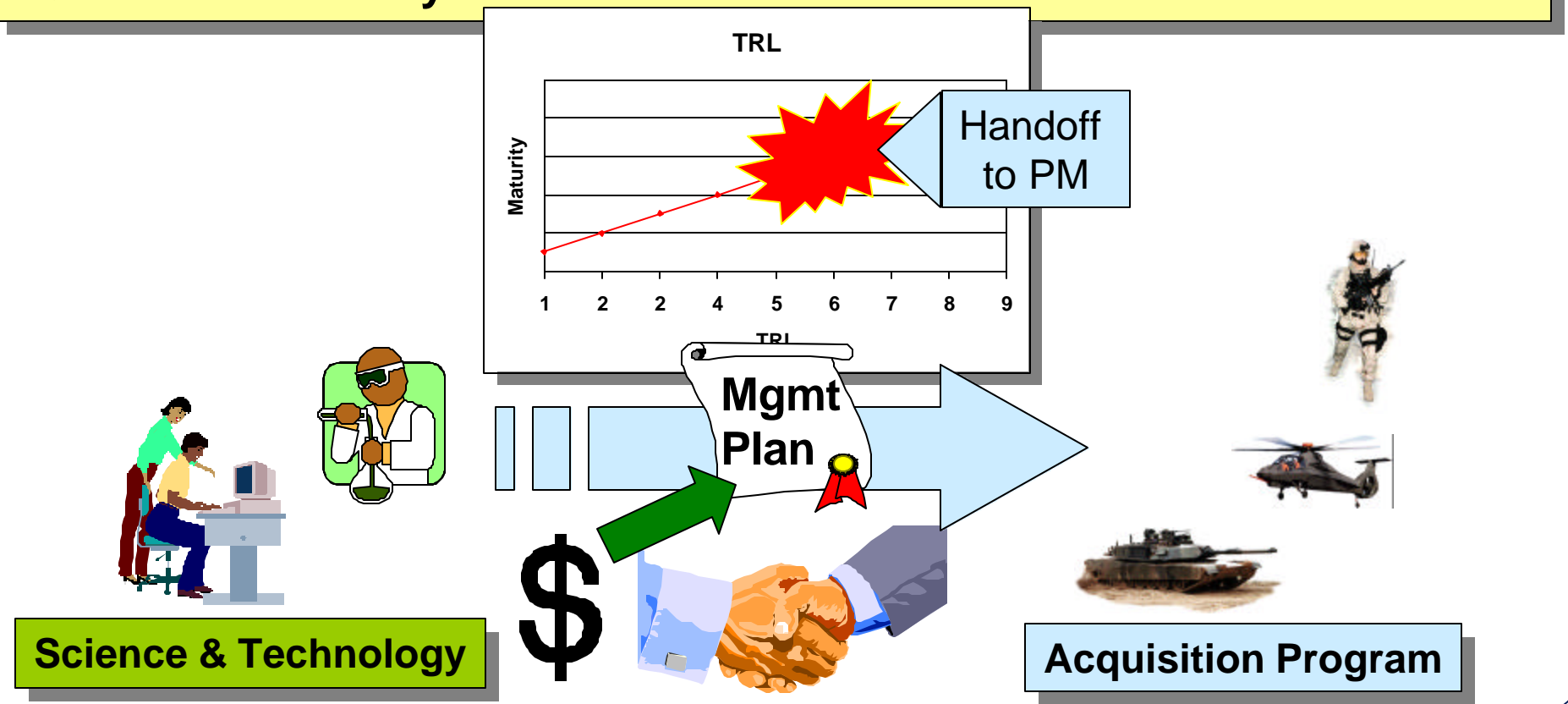
“If a picture is worth a thousand words, then a digital simulation is worth a thousand pictures!”

Paul J. Hoeper, ASA(ALT)

Transition Plans

Develop directive from senior stakeholders requiring:

- Transition plans synchronized/supported in S&T & PM budgets
- Achievement of key Technology Readiness Levels as an exit criteria
- Use of affordability as an exit criteria



Summary

A Very Successful Technology Transition Workshop

- Our Process is Sound**
 - **Implementation is key**
 - **Strengthen guidance and execution**
- Develop a common assessment tool for technology maturity**