

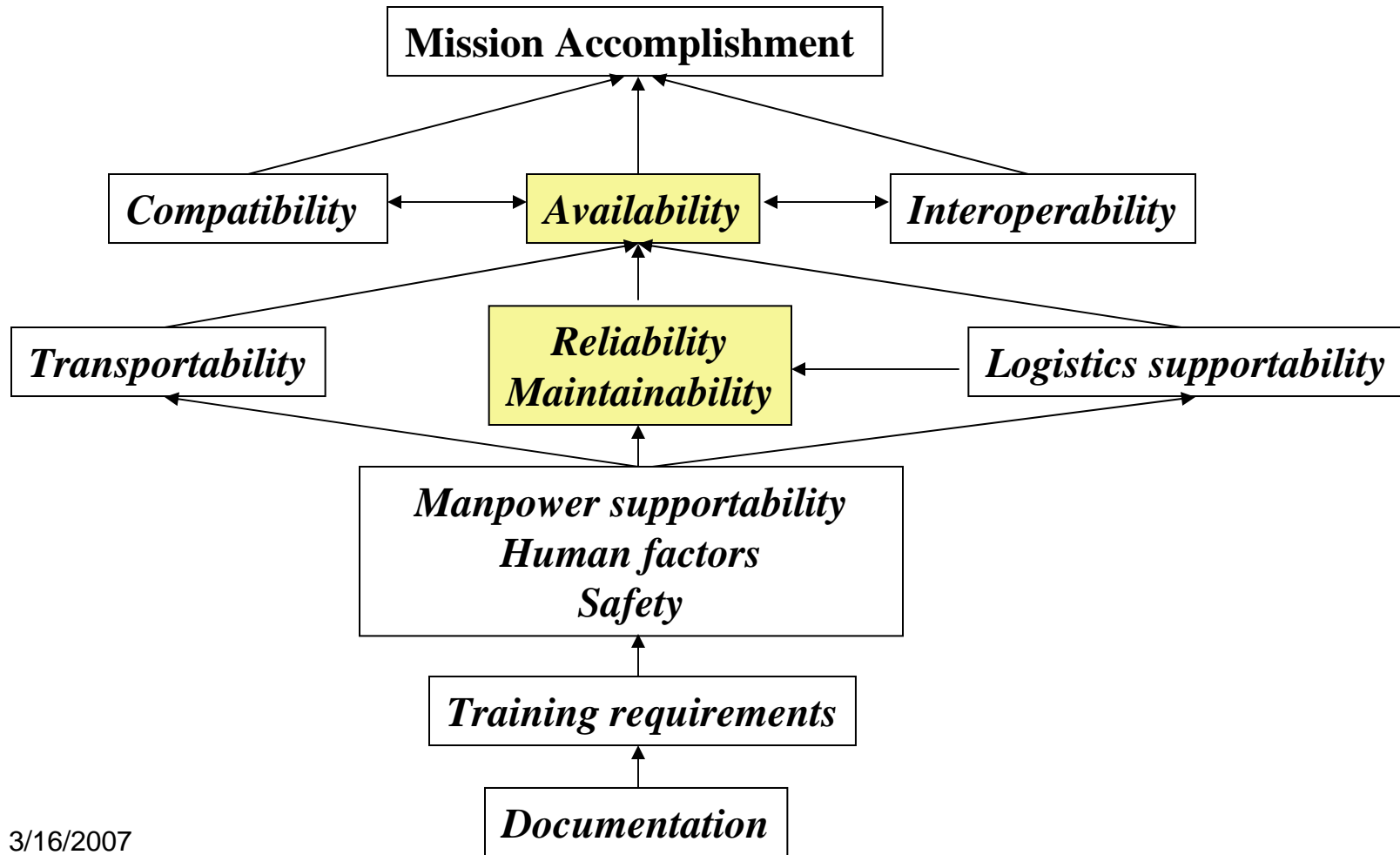


# **Suitability Assessment in Capabilities-Based T&E**

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# Suitability Affecting Mission Accomplishment





## Guidance Relating to DOD T&E

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- **Strategic Planning Guidance (SPG) 2006-2011:**
  - “Development and fielding of joint force capabilities requires adequate, realistic test and evaluation in a joint operational context. To do this the Department will provide new testing capabilities and institutionalize the evaluation of joint system effectiveness as part of new Capability Based processes.”
- ***Recommendation from SPG tasked Report, “Testing in Joint Environments (TIJE) Roadmap” :***
  - “Establish a common, TASK-based language derived from UJTLs for use in Concept development, functional analyses, JCIDS capabilities, acquisition, T&E, training and experimentation and mandate its use in all JCIDS documents.

**What is Needed? How Might it Work?**



## A Common, Task-based Language Definitions of “Capability”

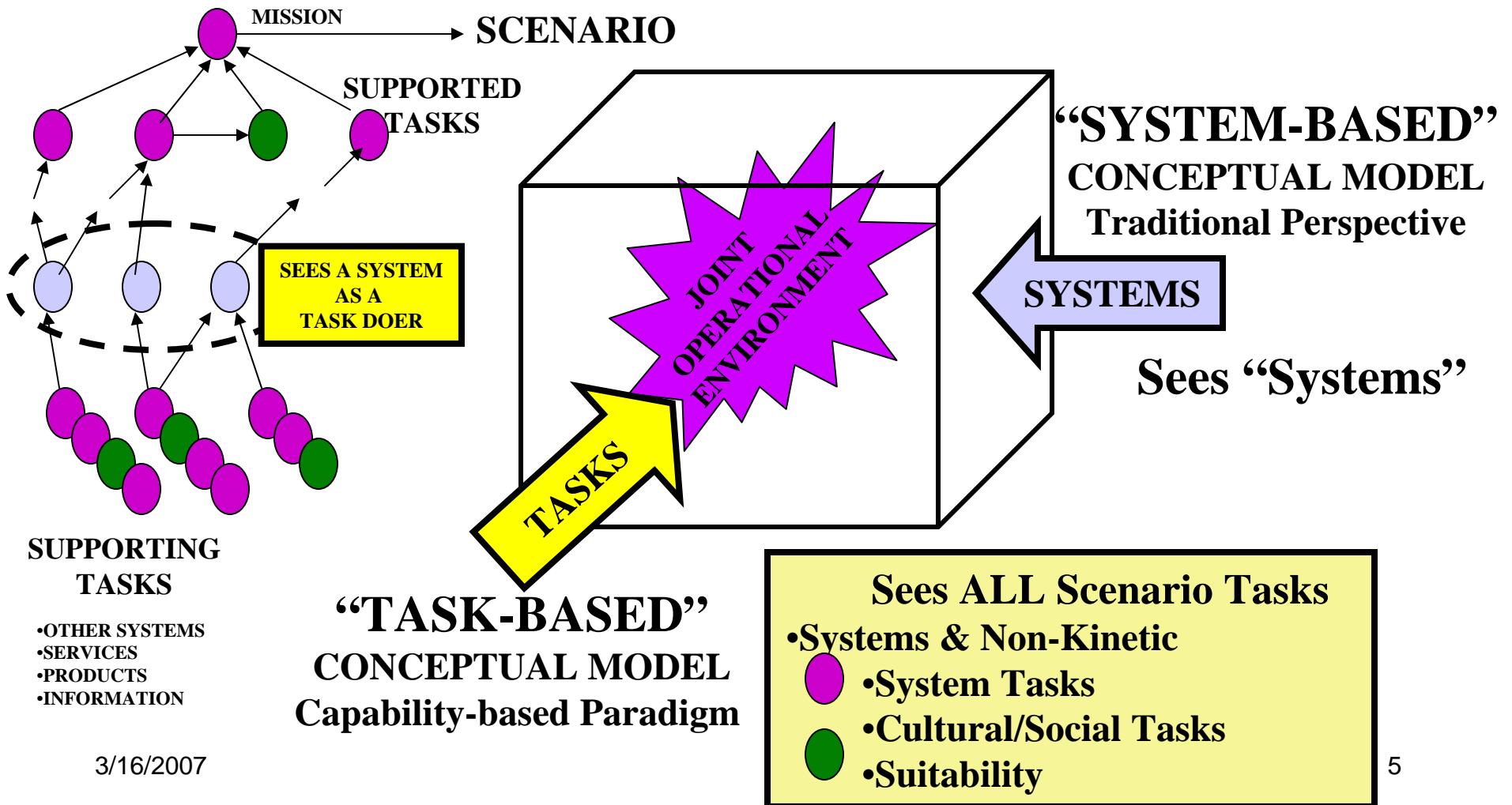
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- **CJCSI 3170.01 11 May 2005, JCIDS**  
*The ability to achieve a desired effect under specified standards and conditions through combinations of means and ways to perform a set of Tasks.*
- **Government of New Zealand, Pub 001, Corporate Statement of Intent(2004-2007), Appendix 5, Glossary SUITABILITY**  
*The appropriate combination of competent people, knowledge, money, technology, physical assets, systems and structures necessary to deliver a specified level of performance in pursuit of the organization’s objectives, now and/or in the future.*
- A Capability is a Task performed to Mission derived Conditions and Standards

**Capability-Based = Task-Based**



# TWO Conceptual Models of the Joint Operating Environment

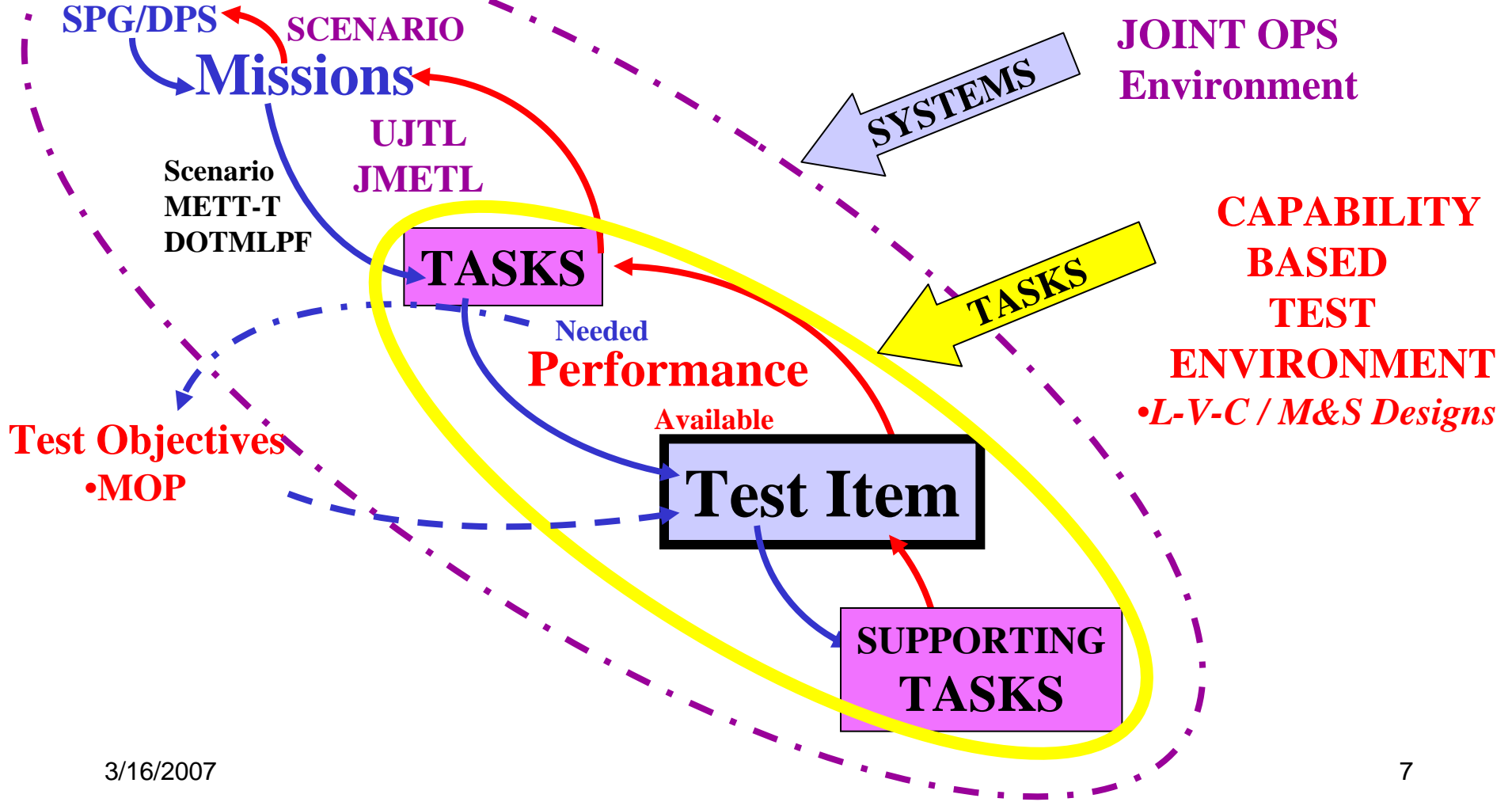


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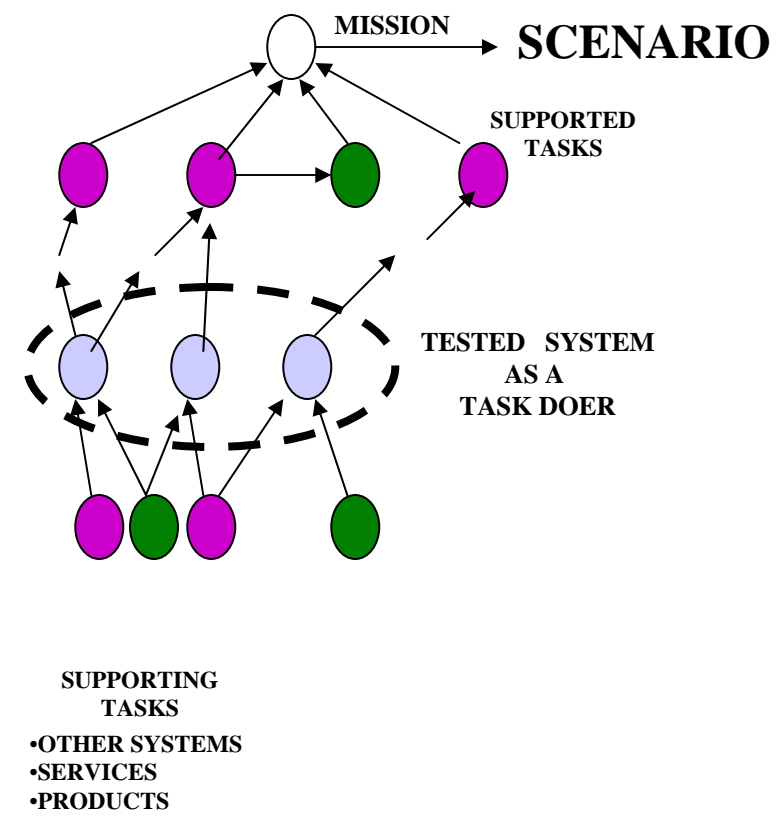
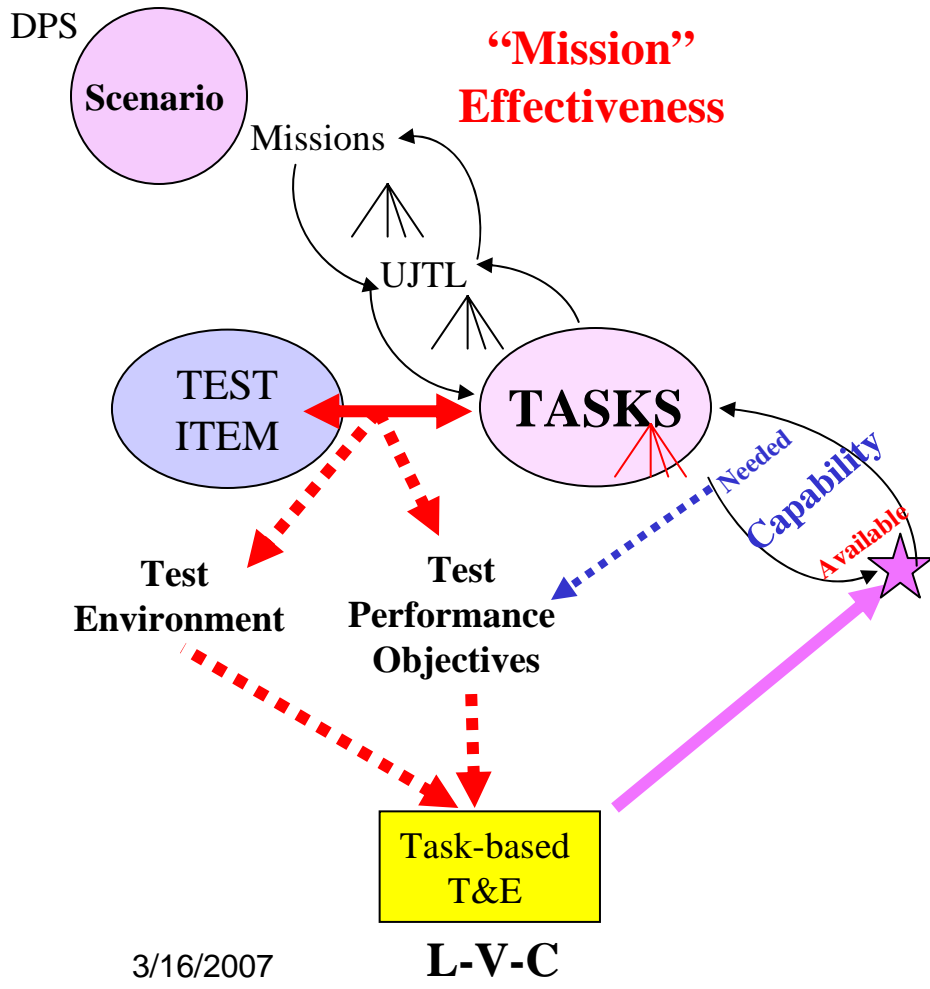


# Task Based Test Environments LVC Design Efficiency





# Capability-based T&E Test Design & Assessment



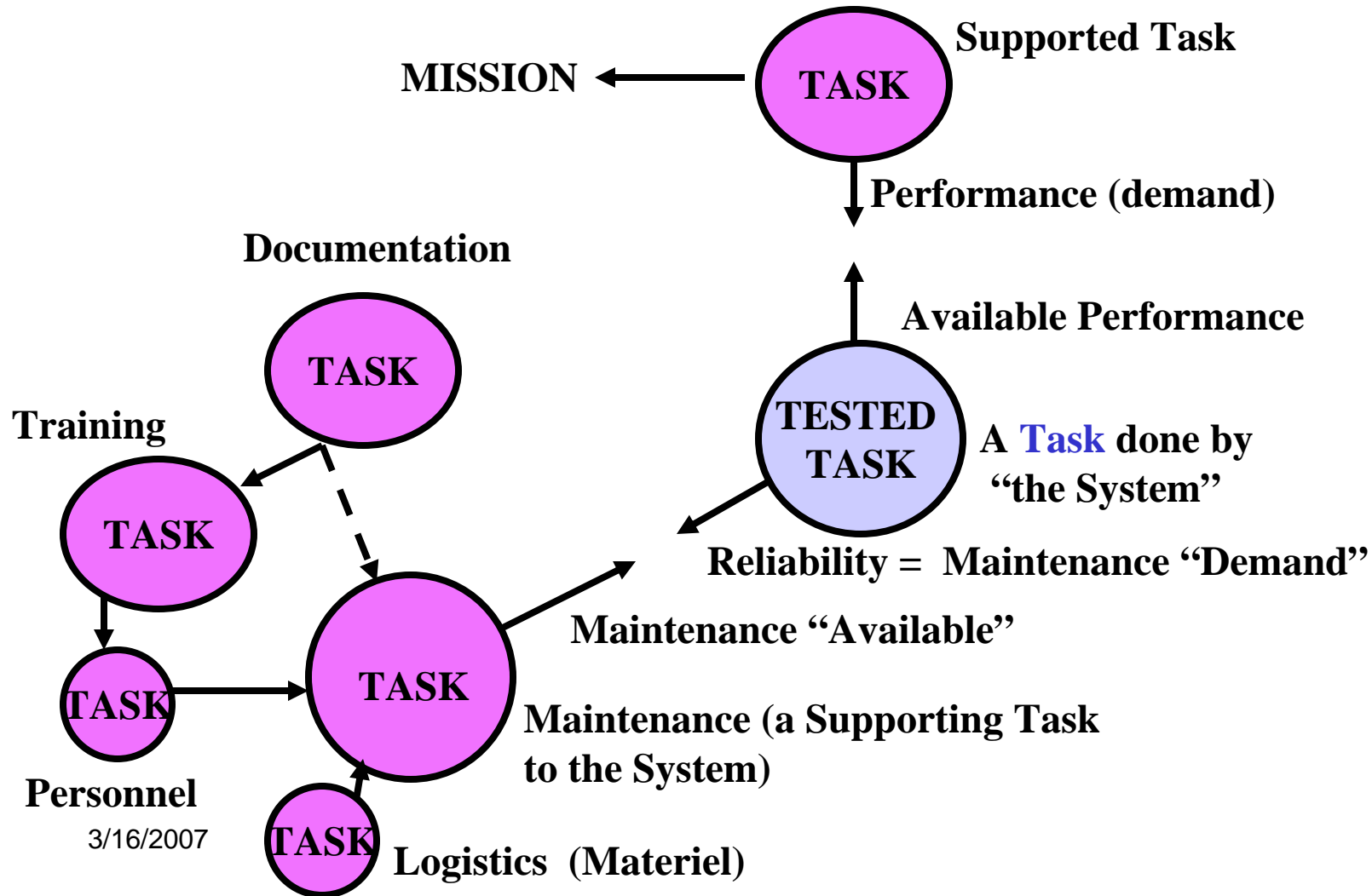
- = System Tasks
- = Non-Kinetic Tasks (SUITABILITY)

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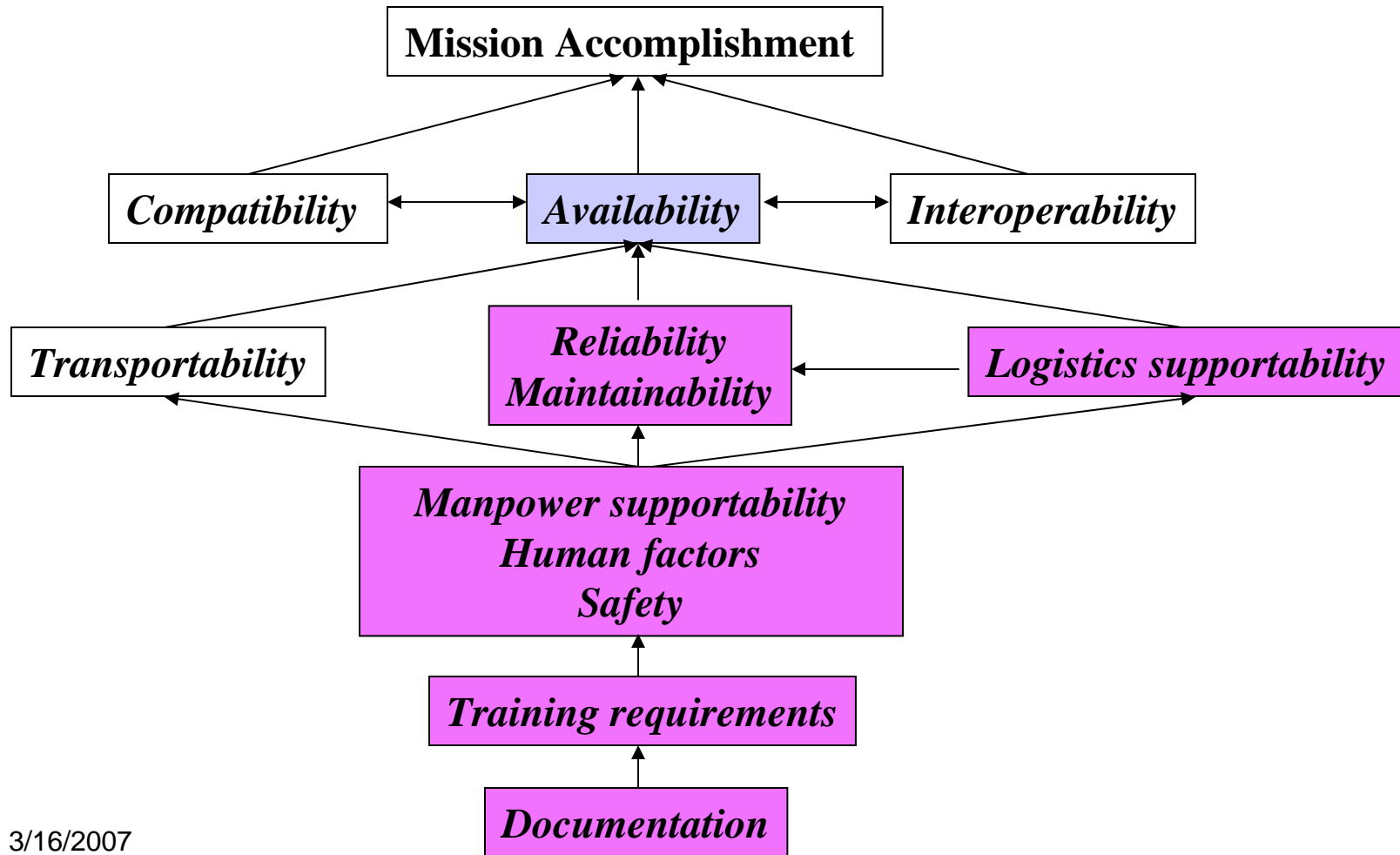
# Capability-based Suitability Testing “Suitability” Components



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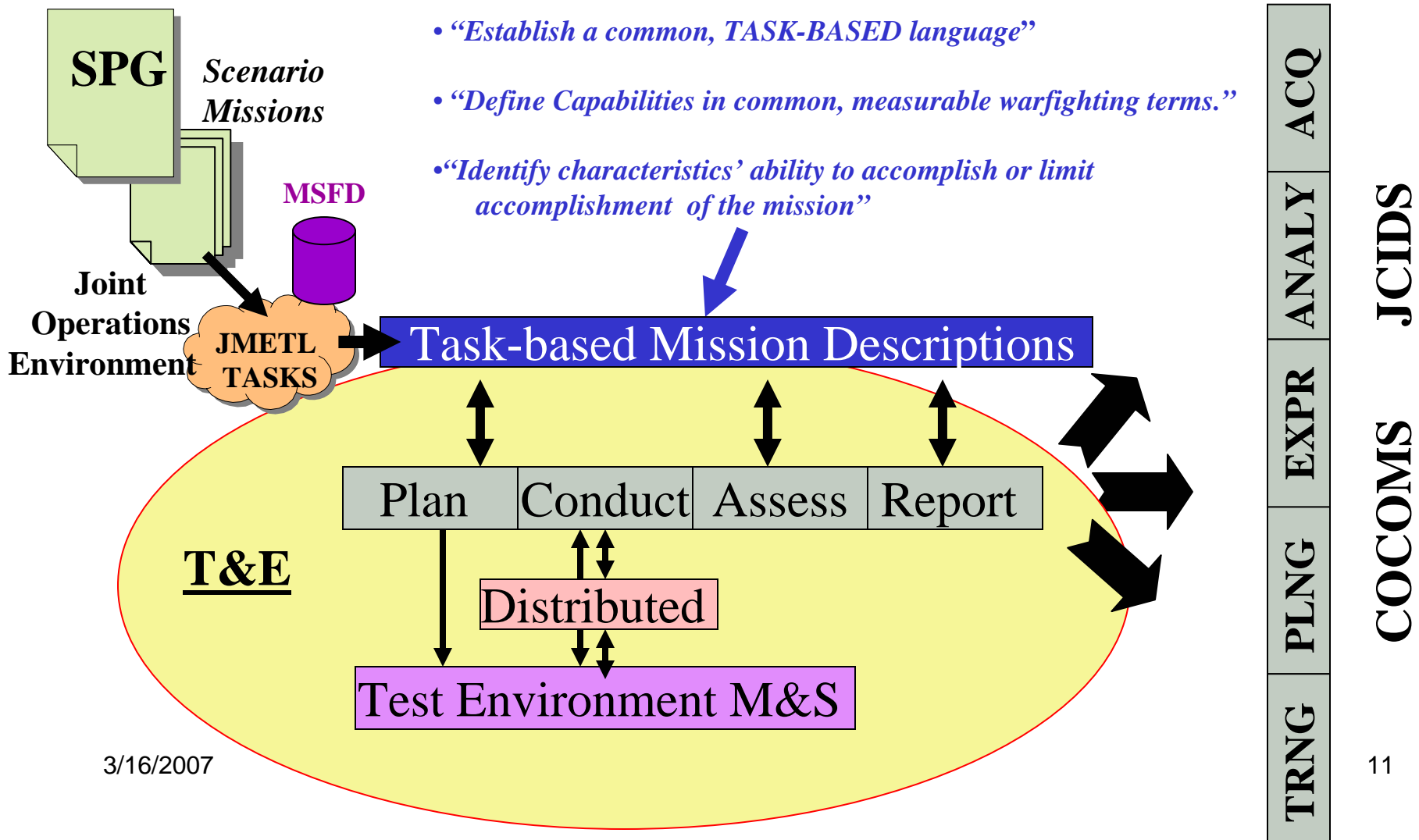


# Suitability Affecting Mission Accomplishment





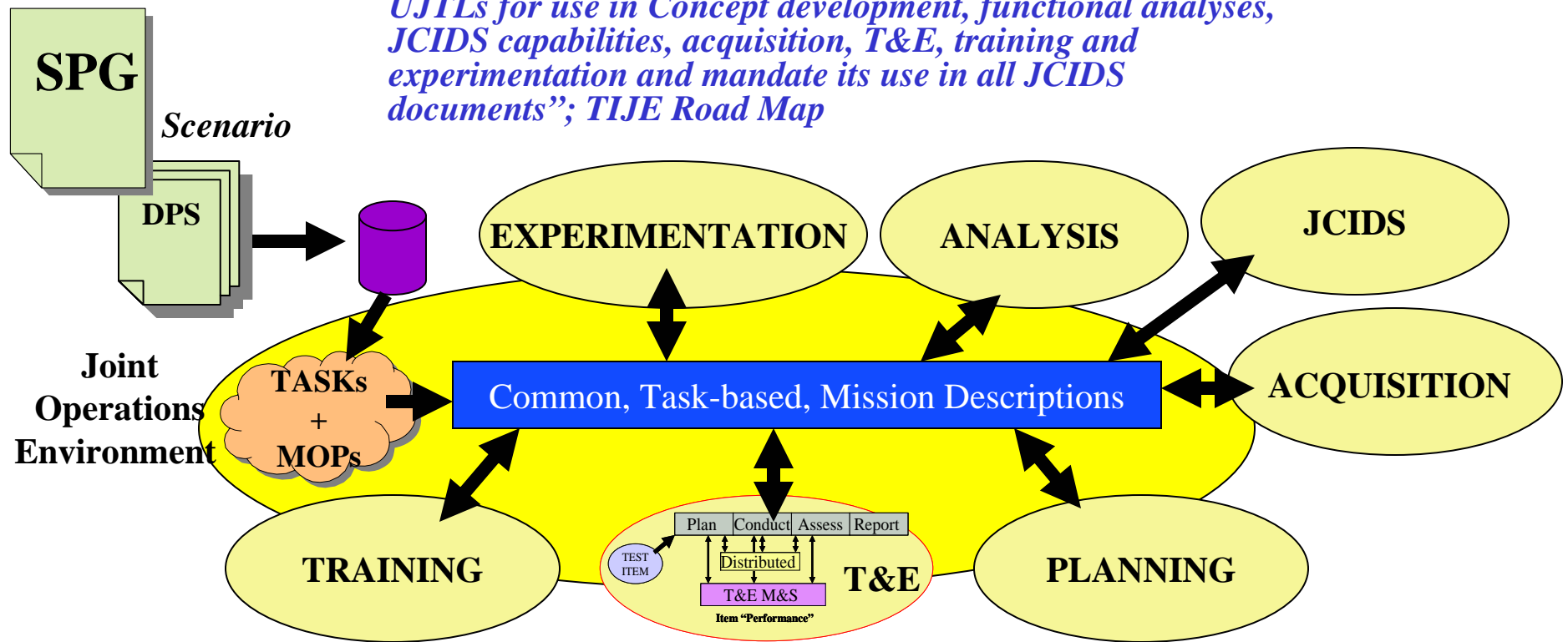
# Capability Assessment T&E Process Implementation Approach





# Common and Cross Cutting Capability-based Conceptual Model

*“Establish a common, TASK-BASED Language, derived from UJTLs for use in Concept development, functional analyses, JCIDS capabilities, acquisition, T&E, training and experimentation and mandate its use in all JCIDS documents”; TIJE Road Map*





# Capability-based Suitability Testing SUMMARY

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- Task-based Conceptual Model of the Joint Operational Environment provides:
  - A comprehensive perspective on ALL activities in the Joint Operating Environment.
  - A useful paradigm for efficient & effective testing and assessment of system Suitability relative to Mission Accomplishment.
- Task-based Conceptual Models are increasingly important to DOD decision making
  - Address today's warfare processes more comprehensively than Systems-based paradigms.
  - Basis for an increasing number of DOD Assessment processes
- System-based Conceptual Models are still needed to inform on MOP for Tasks at the Strategic, Operational and Tactical Level.
  - An enduring role for traditional systems analysis and M&S



## BACKUP SLIDES



## A Common, Task-based Language Task Performance Standards

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### CJCSM 3500.04c, 1 July 2002

- The standard for a joint task is set within the framework of the joint force commander's mission and in the context of the conditions, either most likely or worst case, that are linked to those missions. Thus, the standard(s) for a joint task can only be set when:
  - (1) the mission analysis is complete
  - (2) the conditions affecting the task have been identified and described, and
  - (3) measures and criteria have been selected that reflect the task contribution to mission accomplishment.

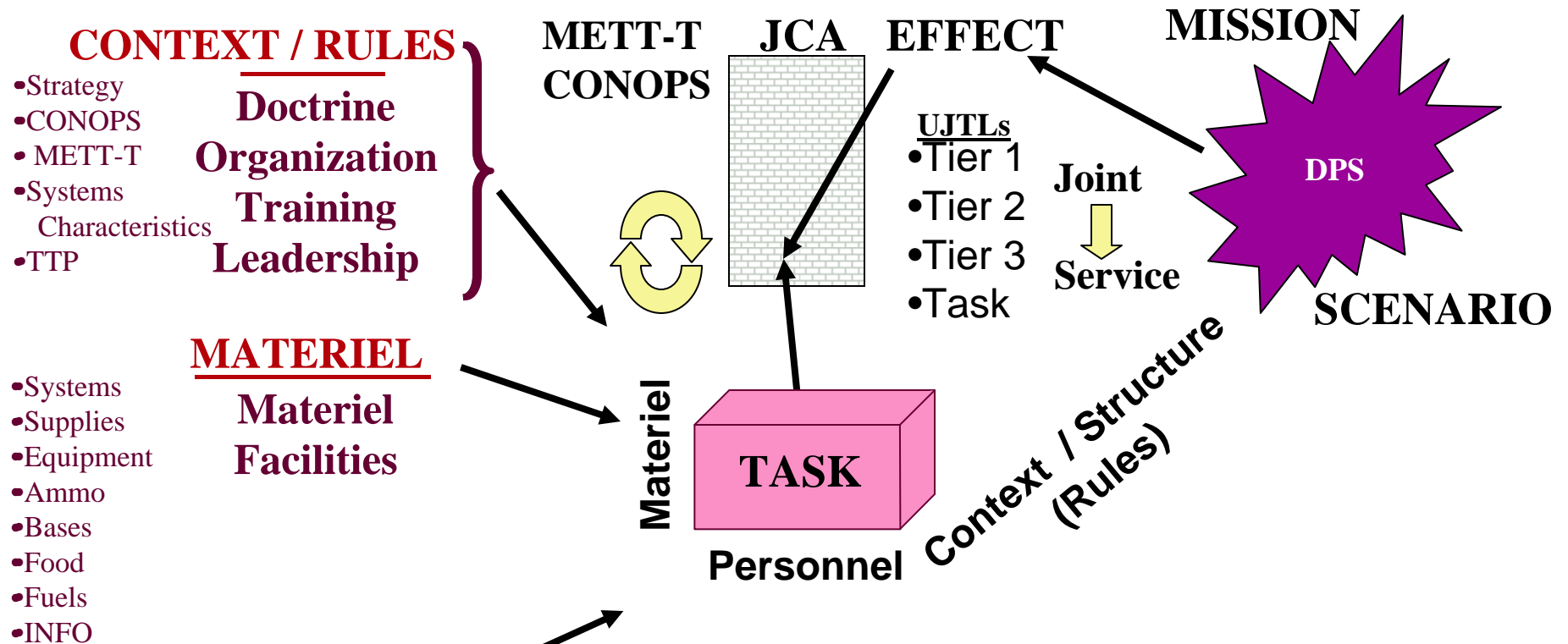
This means that standards are tied to missions. That is, just because a joint task has a particular standard on one mission does not mean that the same standard will apply to other missions.

**To become expressions of “Capability”  
UJTLS require specification of scenario-based conditions and standards**

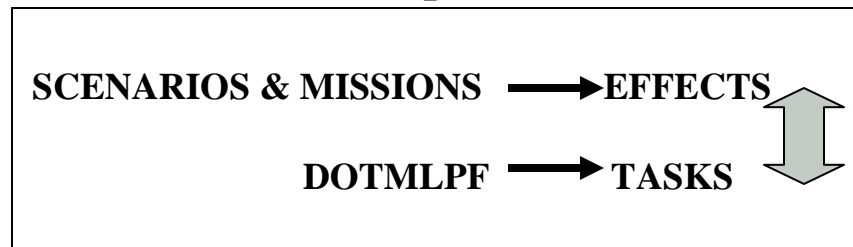


# CAPABILITY

## DOTMLPF, Scenarios, Missions, Effects and Tasks



Capability => A Task performed to a Standard

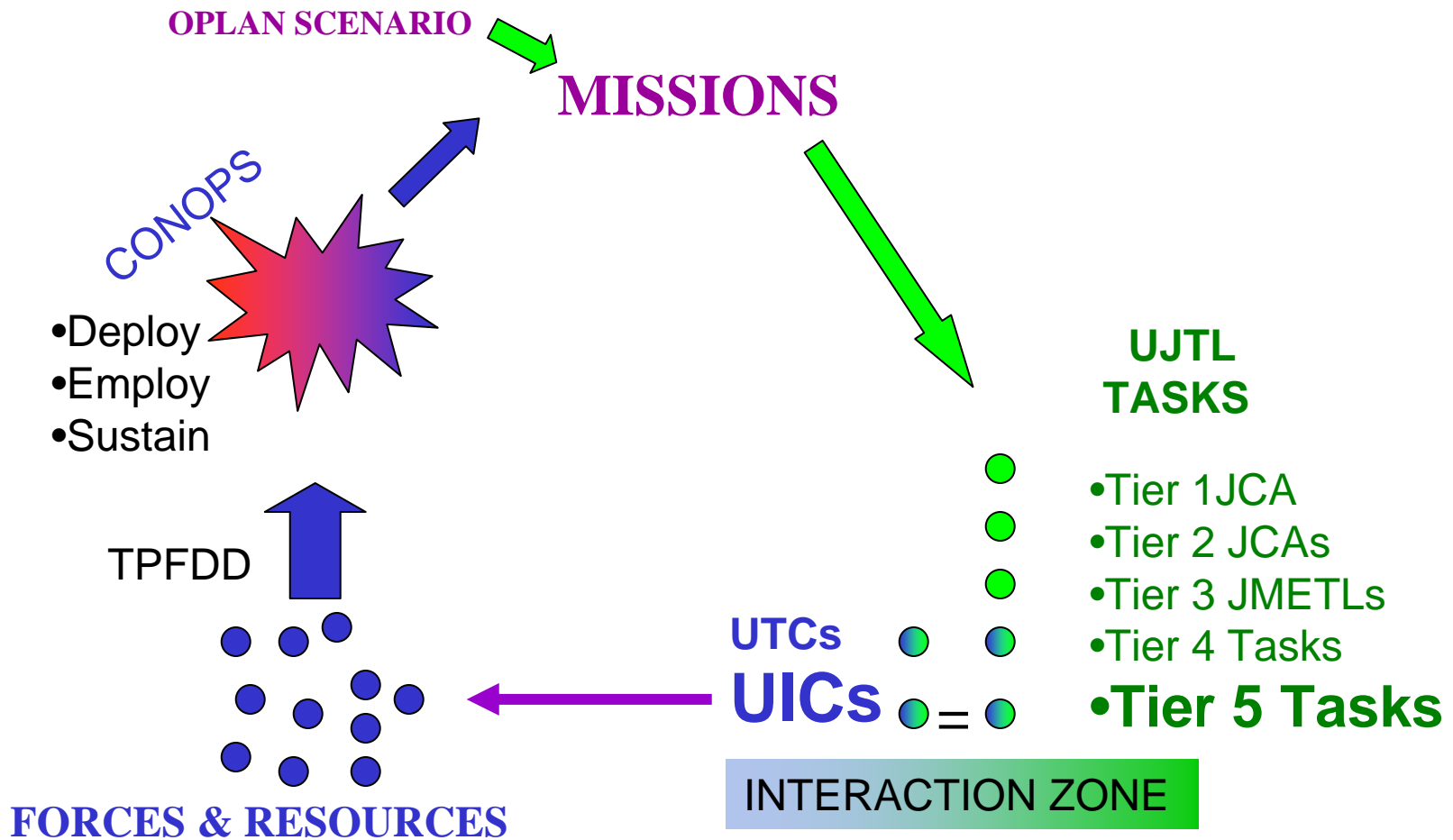








# Task-based Adaptive Planning Example





# Capability-based T&E

## Task-based T&E

