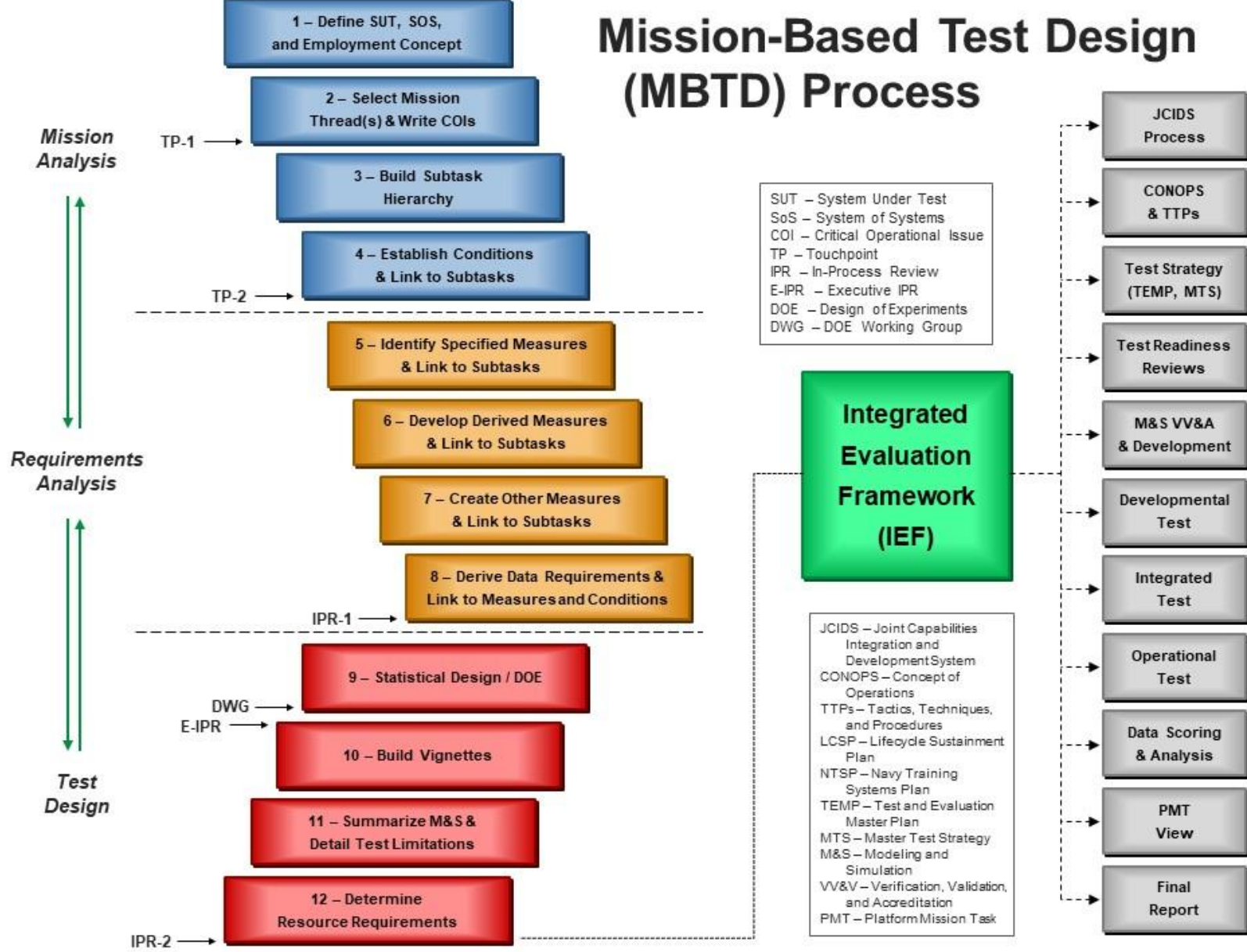# Test Design Policies and Practices

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Mission-Based Test Design (MBTD) Process

Mission Analysis

- 1 – Define SUT, SOS, and Employment Concept
- TP-1 → 2 – Select Mission Thread(s) & Write COIs
- 3 – Build Subtask Hierarchy
- TP-2 → 4 – Establish Conditions & Link to Subtasks

Requirements Analysis

- 5 – Identify Specified Measures & Link to Subtasks
- 6 – Develop Derived Measures & Link to Subtasks
- 7 – Create Other Measures & Link to Subtasks
- 8 – Derive Data Requirements & Link to Measures and Conditions
- IPR-1 →

Test Design

- 9 – Statistical Design / DOE
- DWG → E-IPR →
- 10 – Build Vignettes
- 11 – Summarize M&S & Detail Test Limitations
- 12 – Determine Resource Requirements
- IPR-2 →

SUT – System Under Test
SoS – System of Systems
COI – Critical Operational Issue
TP – Touchpoint
IPR – In-Process Review
E-IPR – Executive IPR
DOE – Design of Experiments
DWG – DOE Working Group

Integrated Evaluation Framework (IEF)

- JCIDS Process
- CONOPS & TTPs
- Test Strategy (TEMP, MTS)
- Test Readiness Reviews
- M&S VV&A & Development
- Developmental Test
- Integrated Test
- Operational Test
- Data Scoring & Analysis
- PMT View
- Final Report

JCIDS – Joint Capabilities Integration and Development System
CONOPS – Concept of Operations
TTPs – Tactics, Techniques, and Procedures
LCSP – Lifecycle Sustainment Plan
NTSP – Navy Training Systems Plan
TEMP – Test and Evaluation Master Plan
MTS – Master Test Strategy
M&S – Modeling and Simulation
VV&V – Verification, Validation, and Accreditation
PMT – Platform Mission Task

Distribution Statement A

2

AI and MBTD

- In Operational Test (OT) AI is a capability within a System Under Test (SUT)

- AI will require earlier involvement in the process (pre-MS-A)
  - Identify/develop unique data collection capability requirements
  - Identify/develop M&S for operational boundary identification
  - Configuration Management development
  - Best practices development

- Tailored approach for each AI SUT
  - Two current examples of OT involvement in AI

- Continuous OT of SUT with AI is not executable
  - IOT&E-Capability being delivered
  - FOT&E includes AI regression OT

Distribution Statement A