EVM
EARNED VALUE MANAGEMENT
PRACTITIONERS' FORUM

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Earned Value Management Practitioners Forum 2018

How to prepare for a DOE EVMS Certification

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Learning Objectives

DOE EVMS Certification Requirements

- Review PM-30 EVMS Certification Requirements
- Discuss PM-30 EVMS Certification Practices e.g., Data Driven Model

Contractor EVMS Roadmap

- Discovery & Planning Phase
- Contactor Readiness Phase
- On-site Review & Closeout Phase

Best Practices & Final Thoughts

- Contactor Best Readiness Practices
- Future of EVMS Reviews e.g., Beyond the Data Driven Model

Founder & Principal Consultant

- Samos Advisors LLC is a leading provider of Project Management and EVM system consulting services serving the U.S. Government and industry clients dedicated to project management excellence

- 30+ years of Project Management and Earned Value Management System design, development, and implementation

- Held various leadership positions in industry and government assuring the implementation and use of Project Management and EVMS as part of effective program management process and reporting tool

- Recognized EVMS SME by the U.S. Department of Defense (DoD), DOE, U.S. Intelligence Community, HHS/CMS and Bio-Pharmaceutical industry

- Trained over 4,500+ acquisition professionals in EVMS basic and advance concepts, variance analysis reporting, & CAM training

- Prepared, trained, and facilitated more than 75+ Government / Industry EVMS reviews (e.g., Contract Implementation Review (CIR), EVMS Post Award Conferences, Integrated Baseline Review (IBR), EVMS Surveillance and EVMS Certification Reviews

DOE PM-30 EVMS Certification
(Background)

- Policy
  - ✓ "DOE Order 413.3B, Program and Project Management for the Acquisition of Capital Assets (in excess of $100Mil)"

- Purpose
  - ✓ "Verify if an integrated and compliant EVMS has been defined, implemented and is being maintained by the contractor for use on a capital asset acquisition projects"

- Objective
  - ✓ "DOE PM-30 will determine if compliance with the EIA-748 Standard as defined by the NDIA EVMS Intent Guide (see next slide), PASEG and GAO Guide"

- Typically, PM-30 requires a 15 month EVMS certification review cycle

Data Source: Contractor EVMS Certification Plan

DOE PM-30 EVMS Certification
(Data Source: NDIA EVMS Intent Guide)
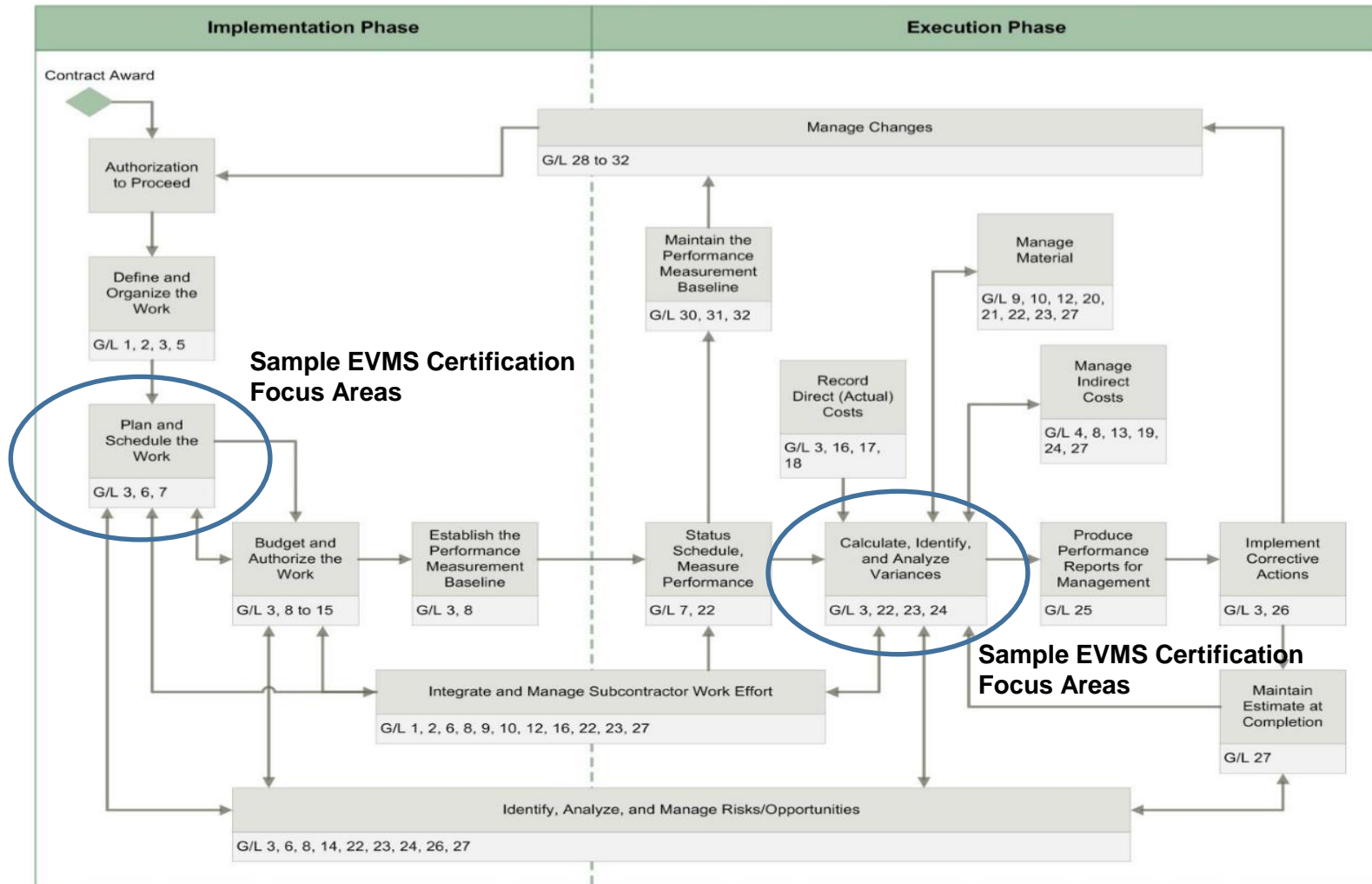
DOE PM-30 Review Process
(Background)

- Determine Scope of Review & Agenda

- Weekly Contractor & PM-30 Conference Calls

- Use of NDIA EVMS Intent Guide and EVMS Attributes for each 32 EVMS guidelines as the basis for compliance

- Manual and Automated Data Driven Model
  - ✓ Complete Compliance Review Check List (CRC)
  - ✓ Established Testing Protocols & Reporting Thresholds
  - ✓ Submission of 3 Contractor "Data Calls"
  - ✓ Isolates [identify] Systemic Issues
  - ✓ Determine EVMS compliance with EIA-748

DOE PM-30 Review Process

(Background)

- PM-30 Area Team Leads document preliminary & final recommendations to the PM-30 Review Chief
  - ✓ Prepare IFF (Interview Finding Forms)

- PM-30 On-Site Review Process
  - ✓ Conduct Contractor / PM-30 In-briefs
  - ✓ Review EVMS Documentation & Story Boards
  - ✓ Conduct Interviews
    - ✓ Follow "Data Driven" Review Approach / Complete IFFs
  - ✓ Conduct Interviews / Daily Meetings
  - ✓ PM-30 Interview & Summarization
  - ✓ Review Director reviews preliminary PM-30 Outbrief with Contractor Site Project Director

Example Contractor EVMS Certification Readiness Roadmap

1 *Discovery & Planning Phase*

- **Independent Cost Estimate (ICE)**
- **External Independent Review (EIR)**

PM-30 Road Side Assist Visit (RSAV)

Contractor Certification Readiness Meetings

Roles and Resp.
- **Project EVMS Sponsor/Owner**
- **Certification Lead / Admin. Support**
- **Corporate / EVMS SMEs**
- **Develop "Plan for the Plan"**

EVMS Process
- **Policies/ EVM System Description**
- **Procedures**
- **Process Flow Charts**
- **Job Aids / White Papers**

Tools & Training
- **E-CAM Notebook**
- **On-line EVMS Training & Quiz**
- **Data Analytics**
- **Data Analysis Tools**
- **Data Call Submissions 1-2-3**

2 *Contractor Readiness Phase*

Contractor / DOE Weekly Meetings (e.g., Data Call Concerns)

- **Round Tables**
- **Grey Hats**
- **Black Hats**

- **Interview Notes**
- **Action Item Data Base**
- **Lessons Learned**

- **Final Prep Meeting**
- **Develop In-Briefs**
- **Logistics / Security**
- **Data Access**
- **Central Repository**

3 **EVMS Certification Review & Closure Phase**

On-site Review

Prelim / Final PM-30 Report (CARs, DRs and CIOs)

Contractor CAPs & PM-30 Approval

PM-30 Issues EVMS Credentials

Contractor Begins EVMS Self-Governance

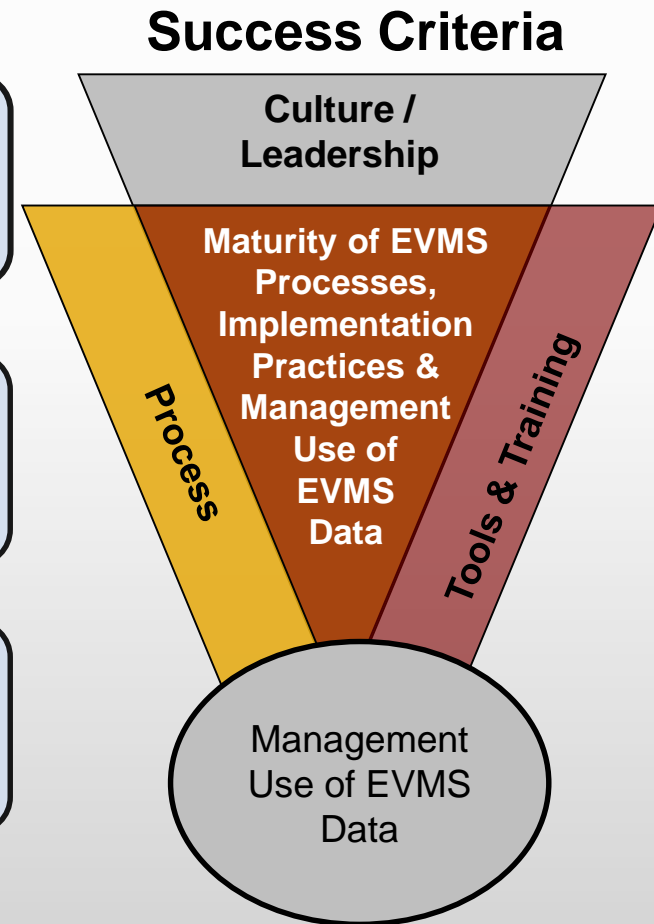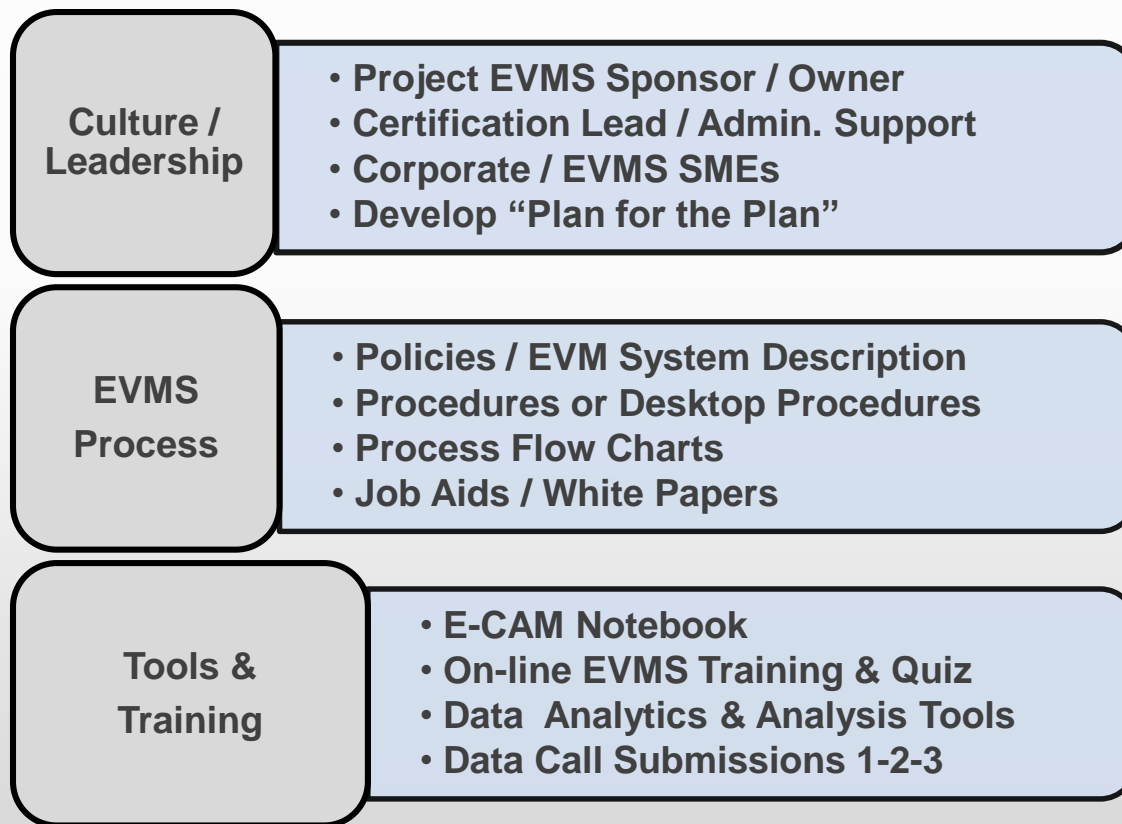2018 EVMP Forum – August 22nd & 23rd

8

Discovery and Planning Phase

DOE EVMS Certification Entry Criteria

- Independent Cost Estimate (ICE)
- External Independent Review (EIR)
- Achieve Critical Decision 2/3
  - ✓ (Start Construction)
- ✓ PM-30 selects Review Director and Team Members to conduct EVMS Certification Review
  - ✓ Selection of PM-30 review team members may come from another DOE facilities

Discovery and Planning Phase

Series of Contractor Kick-off Meetings

Success Criteria

Culture / Leadership

- Project EVMS Sponsor / Owner
- Certification Lead / Admin. Support
- Corporate / EVMS SMEs
- Develop "Plan for the Plan"

EVMS Process

- Policies / EVM System Description
- Procedures or Desktop Procedures
- Process Flow Charts
- Job Aids / White Papers

Tools & Training

- E-CAM Notebook
- On-line EVMS Training & Quiz
- Data Analytics & Analysis Tools
- Data Call Submissions 1-2-3

Culture / Leadership

Process

Maturity of EVMS Processes, Implementation Practices & Management Use of EVMS Data

Tools & Training

Management Use of EVMS Data

Contractor Readiness Phase

- Conduct "Joint" Leadership Teleconference Calls
- Contractor Interview Strategy
  - ✓ Develop Certification <u>Schedule & Strategy</u>
    - ❑ 1 Page Cartoon Summary and Detail Schedule
    - ❑ e.g., Project Stakeholders, Project Director, Project Controls, CAMs
  - ✓ <u>Roundtable</u>: Open Discussion Forum
    - ❑ Focus on critical project management and EVMS issues
    - ❑ Record & distribute action items, issues and/or concerns
  - ✓ <u>Grey Hats</u>: Some Coaching / Simulate PM-30 Interviews
    - ❑ Review process and implementation practices (data traces)
    - ❑ Identify and resolve systemic issues
  - ✓ <u>Black Hats:</u> No Coaching / Simulate PM-30 Interviews
    - ❑ Compliance Review Check List
    - ❑ Review Data Driven Results
    - ❑ Conduct Control Account Data traces

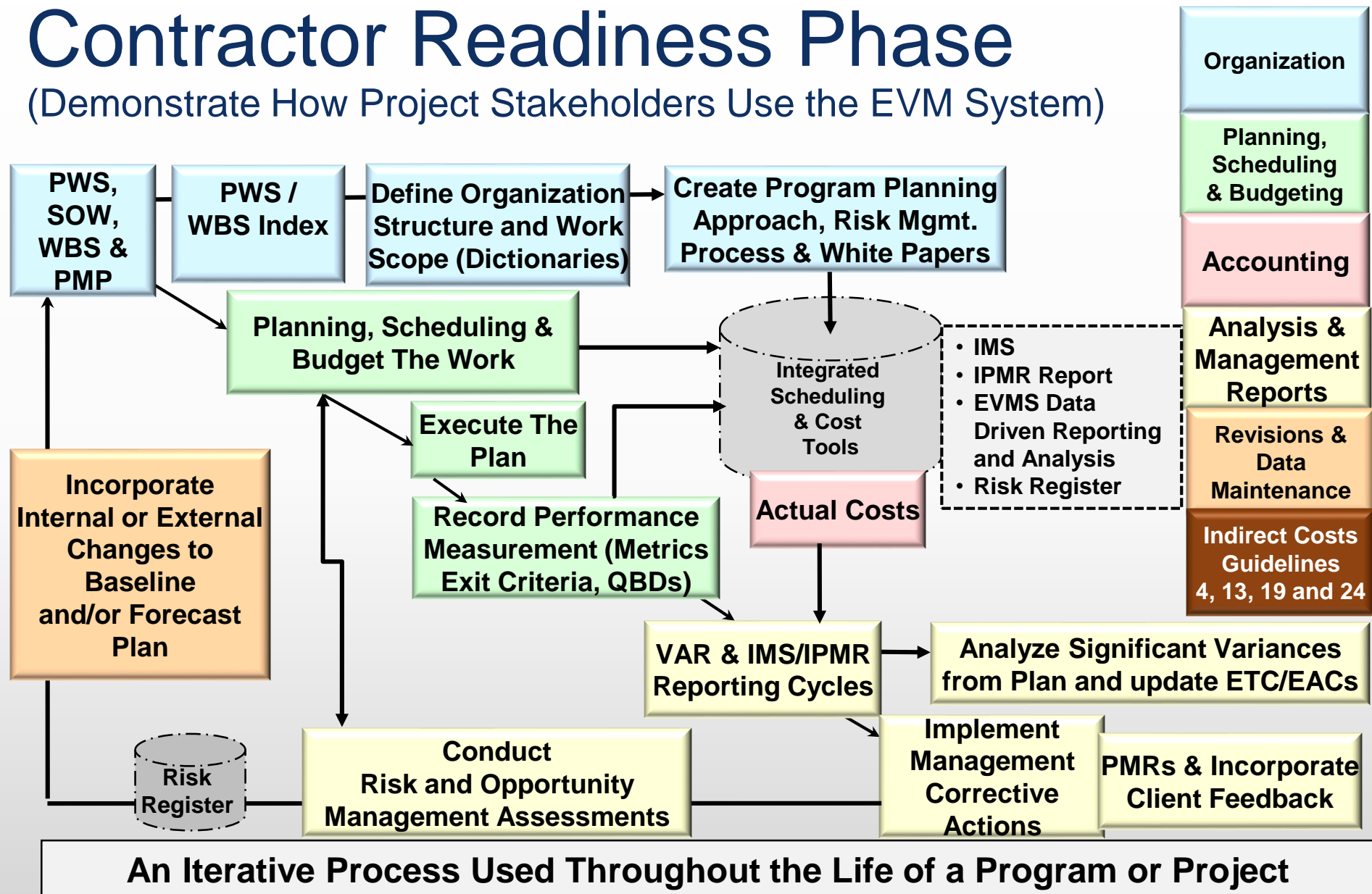# Sample PM-30 CRC Check List

DOE Attribute and Testing Protocols

Sample Contractor Responses

Attribute	Test Method	X-Value	Y - Value	Artifact 1	Artifact 2	Threshold	Sample PM/CAM Response
1. Does the IMS reflect all authorized, time-phased discrete work to be accomplished, including details for any significant subcontracted effort and High Dollar Value (HDV)/ critical materials that could affect the critical path (CP) of the IMS?	Manual	X = # of High Dollar Value/Critical Item (HDV/CI) materials listed in the HDV/CI material items list that are not found in the IMS	Y= Total # of HDV/CI material items	HDV/CI Material Items List	IMS Flat File	>0%	Demonstrate and discuss your HDV/CI material list. Do you understand why this list is important to critical path analysis? Are these items in the IMS? If they are not in the IMS explain why. Answer: Demonstrates traceability and integration of the EVMS system.
	Automated	X = Count of incomplete discrete WPs, PPs, and SLPPs found in the EVMS cost tool code that are not found in the IMS code	Y = Total count of all incomplete discrete WPs, PPs, and SLPPs found in the EVMS cost tool	Cost Tool	IMS Flat File	>0%	Demonstrate that incomplete WPs, PPs, and SLPPs found in Cobra are also found in the IMS. If the two do not agree explain why. Answer: Demonstrates traceability and integration of the EVMS system.

EVMS Attributes Maps back to NDIA EVMS Guide

Contractor Readiness Phase
(Demonstrate How Project Stakeholders Use the EVM System)

PWS, SOW, WBS & PMP → **PWS / WBS Index** — **Define Organization Structure and Work Scope (Dictionaries)** → **Create Program Planning Approach, Risk Mgmt. Process & White Papers**

Planning, Scheduling & Budget The Work

Execute The Plan

Record Performance Measurement (Metrics Exit Criteria, QBDs)

Integrated Scheduling & Cost Tools

Actual Costs

- IMS
- IPMR Report
- EVMS Data Driven Reporting and Analysis
- Risk Register

Incorporate Internal or External Changes to Baseline and/or Forecast Plan

VAR & IMS/IPMR Reporting Cycles → **Analyze Significant Variances from Plan and update ETC/EACs**

Risk Register

Conduct Risk and Opportunity Management Assessments

Implement Management Corrective Actions

PMRs & Incorporate Client Feedback

Organization
- **Planning, Scheduling & Budgeting**
- **Accounting**
- **Analysis & Management Reports**
- **Revisions & Data Maintenance**
- **Indirect Costs Guidelines 4, 13, 19 and 24**

An Iterative Process Used Throughout the Life of a Program or Project

Contractor Readiness Process
(Example Organization for Project Management Data Trace)

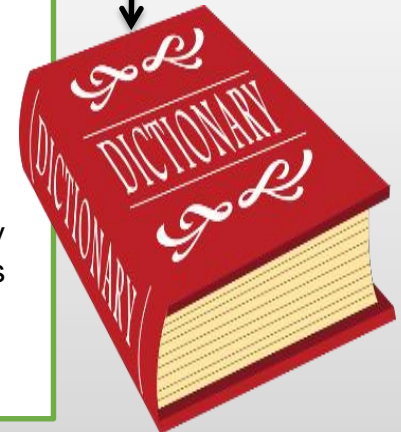**① Contract & Modifications**

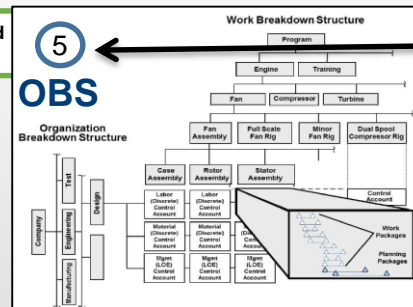**② State of Work Statement**

③ WBS

PWS/WBS Index
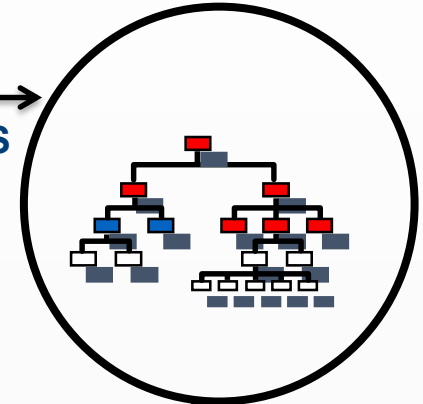
④ WBS Dictionary

- Summary Definition
- Approved Baseline Changes
- Detail Work Statement
- Methodology
- Assumptions
- Exit Criteria
- WBSD Pointers

Update OBS as required (New CAM assignment)

⑤ OBS

⑦

P6/Cobra Integration

⑥ RAM (WBS/OBS)

Validate CAM Span of Control

Key
OBS – Organizational Breakdown Structure
RAM – Responsibility Assignment Matrix
PWS – Performance Work Statement
WBS – Work Breakdown Structure

Contractor Readiness Phase

- Conduct Contractor EVMS Self Assessment
  - ✓ "Self-disclosures" vs. "Avoidance"
- Final Contractor Prep Meeting
  - ✓ Consistency in contractor responses to client
- Develop In-Brief
  - ✓ Reference contractor EVMS compliance plan
  - ✓ Provide CAMs with support / information regarding systemic and/or project-wide issues
- Other Items
  - ✓ Meeting Space / Security [Building Access] / Internet Connectivity / Logistics [transportation and lunch]
  - ✓ Data Access / Avoid Paper Copies / Scribes
  - ✓ Central Data Repository

EVMS Onsite Review / Post Certification Closure Cycle

On-site Certification Review

- **Conduct Interviews**
- **Setup central depository for client data requests**
- **Track PM-30 Action Item responses**
- **Daily Outbriefs / Open Discussions / Resolve Compliance Issues**
- **Document Best Management Practices**

Preliminary / Final PM-30 Reports

- **PM-30 / Contractor conducts Factual Accuracy**
- **Corrective Action Reports (CAR)**
- **Defect Reports (DR)**
- **Continuous Improvement Opportunity (CIO)**

Contractor CAPs & PM-1 / PM-30 Approval

- **PM-30 and Contractor PMO Collaboration for Resolving Material, Systemic, and Repeatable Compliance Issues**

DOE CAP Approval

No

Yes

DOE Issues Contractor EVMS Credentials

Contractor *Begin EVMS Self-Governance*

Key Takeaways

- **Best Practices**
  - ✓ **Overall Contractor Readiness:** Schedule all certification readiness activities well in advance and no longer than 1 hour in duration
    - ❑ Conduct readiness activities along side of EVMS business rhythms calendar (e.g., Schedule Status, CAM ETC/ EAC Reviews, Management VAR Reviews)
    - ❑ Let the Program Manager, Project Controls, and CAMs de-conflict their work schedules in support of EVMS certification readiness activities
    - ❑ Assign Central POC for scheduling all Round Table, Grey and/or Black Hat Interviews
    - ❑ Provide Immediate "Feedback" to project stakeholders

Key Takeaways

- **Tips & Tricks**
  - ✓ **EVMS Certification Interviews:** Must demonstrate use of EVMS processes, management implementation practices, tools and use of EVMS data to make timely, accurate and predictable management decisions.
    - ❑ Listen! Ask Auditors to Repeat Question!
    - ❑ Tell Me! Show Me! Demonstrate EVM System Integration!
    - ❑ Use of Job Aids and Process Flow Charts!
    - ❑ Be Organized! E-CAM Notebook! File Management!
    - ❑ PM and CAM Data Traces
      - o Show CAM "Fast Fact Sheet"
      - o Demonstrate integration of PMO and EVMS Calendars
      - o Perform forward and backward control account data traces
      - o Resolve concerns and issues from Data Driven Results

Presenter Final Thoughts!
EVMS Certification Reviews

- **<u>First Stage:</u>**
  - ✓ C/SCSC (Cost/Schedule Control system Criteria)
  - ✓ "Cumbersome Reviews"

- **<u>Second Stage:</u>**
  - ✓ ANSI-748 / EIA-748 EVMS Standard
  - ✓ Lack of "Review Standards"

- **<u>Third Stage</u>**
  - ✓ Alliances between Government and Industry to form EVMS Standardization Practices; e.g., NDIA, CPM, EFCOG: GAO, Working Groups, etc.,

- **<u>Fourth Stage (Current State)</u>**
  - ✓ DCMA / DOE Data Driven Reviews (Standardization of Reviews)
  - ✓ Review Focus: Isolate and discuss "EVMS Systemic Issues"

- **<u>Fifth Stage (Future State)</u>**
  - Improve upon data collection process and Data Driven Model "Techniques"
  - Government moves toward "Team Focus" reviews versus solely "CAM Focus"
  - e.g., Conduct "Joint EVMS Team Reviews" involving the contractor CAM as well as applicable Government and Contractor project stakeholders