Integrated Baseline Review

Unlocking and maximizing the value

ProjectChat 2026

Brad Richardson and Meri Duncanson

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ACHIEVING PROJECT GOALS

Housekeeping

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- **This masterclass runs for 4 hours with an afternoon tea break**
- **Questions welcome anytime — jump in as we go**
- **Phones on silent to minimise disruptions**
- **Bathrooms and exits are located nearby**
- **This session includes interactive discussions – Your active participation will strengthen the value of this session**
- **Slides will be available**
- **Please avoid sharing sensitive Defence/Industry examples outside this room**

Agenda

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- **Welcome**
- **Background to the IBR and integration of Scope, Schedule Cost through the AS-4817 EVM Framework**
- **Lessons Learned**
- **Driving Value for Industry, with Case Study**
- **Break**
- **Driving Value for Defence, with Case Study**
- **Questions and General Discussions**
- **Bringing it all together and Closeout**

Introductions

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BRAD RICHARDSON

Scope Works Managing Director & Founder

25+ Senior Defence Leadership Experience including Above & Below the Line across CASG, AIR, LAND, C4i, SEA Domains

Project Management, PMO Project Planning, Scheduling, EVM, Cost Expert, Bid, Implementation, Training, Coaching, Independent Reviews including PMO, EVM System Reviews & Assurance Reviews, Integrated Baseline Reviews (IBR)

Brad has more than 30 years' experience in senior leadership, program and project management, PMO and project controls, primarily within the Australian Defence sector.

Brad has worked across Defence primes and above the line Defence across LAND, SEA, Shipbuilding, AIR, SPACE and JOINT domains, supporting the delivery of large, complex ASDEFCON programs.

Brad specialises in Defence PMO, Earned Value, Scheduling, Project Controls, Cost, Risk frameworks, implementations, training and Assurance reviews, including IBR and EVM Reviews.

Brad has conducted numerous Integrated Baseline Reviews for large complex ASDEFCON and AS4817 compliant Defence projects – both for Primes and above the line Defence – so brings experience from conducting and preparing for IBR reviews.

Brad is the Founder and Managing Director of Scope Works, a national PM, Project Controls Defence industry consultancy providing typically 15+ years experienced practitioners and Scope Works bespoke industry global PMO, EVM proven best practices, training and reviews.

Introductions

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MERI DUNCANSON

Senior PMO EVM Consultant

25+ Senior Defence Experience
Lockheed Martin, Northrop Grumman, BAE Systems, Tenix Defence, EOS Defence, Telstra, CASG
PMO, Program Management, Project Planning, Scheduling, EVM, Cost, Risk Management
PMO, EVMS Systems, Processes Implementations, Training, IBR Reviews, Independent Reviews, Bid Proposals

Meri has more than 27 years' experience in program controls, PMO and governance, and currently works in the defence sector.

Meri has led the development and implementation of project management frameworks, governance systems and scalable PMOs across not for profit and government owned organisations, with a career spanning Defence, Aerospace and Telecommunications in both consulting and in-house roles.

Meri specialises in improving program performance through effective PMO, governance, EVM, scheduling, risk and project controls, and is certified in Integrated Program Performance Management.

Meri has significant experience in conducting IBR, Gate Reviews, Governance and Assurance Reviews across Defence and other industries.

About Scope Works

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DEFENCE PM, PMO, PROJECT CONTROLS CONSULTANCY

About Scope Works

Scope Works is a national Defence project management consultancy with significant peer level 15+ year industry experience from Bid Proposal, Project Setup and Execution Phases.

Our consultants have significant experience in Australian Defence ASDEFCON & AS4817 EVMS requirements. We specialise in implementing and supporting PMO, Scheduling, Earned Value Management (EVM), Cost and Project Controls, EVM and Governance PMO Frameworks and Assurance including IBR, and EVM System Reviews.

Scope Works adopts along term 'Total Integrated Solution' approach providing tailored, Integrated and scalable end-to-end project controls capability solutions for our clients.

Services

- Bid Proposal Scheduling Support & Peer Reviews
- Earned Value Management (EVMS) Project Controls & PMO Systems Implementations
- Independent Reviews Assurances & Audits
- Coaching, Mentoring & Training Program
- Latest Industry Systems & Tools
- Agile & Lean Project Methodologies

Scope Works Unique Defence Project Controls Capability Uplift: Systems, Training, Coaching & Governance

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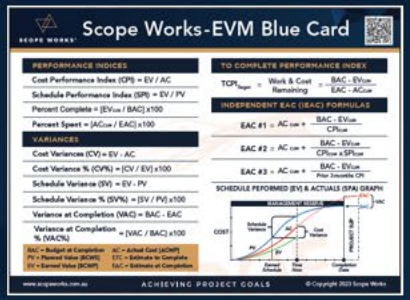
SCOPE WORKS PRACTICAL FOCUSED TRAINING COURSES

HOME | SERVICES | INDUSTRIES | PMO SELF ASSESSMENT TOOL | TRAINING | CAPABILITY BROCHURES

Tailored Best Practice Training & Coaching available:

1. PM/CAM ASDEFCON Projects Training Practioner Course
2. Integrated Baseline Review (IBR) Training & Coaching
3. Earned Value Practioner Course (with Scope Works EVM Blue Card)
4. Scheduling Practioner Course
5. Agile Practioner Course
6. Schedule & Risk Estimating Practioner Course



Scope Works Uniquely Designed PM PMO Best Practice Tools

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PMO UPLIFT & MATURITY ASSESSMENT TOOL

HOME | SERVICES | INDUSTRIES | PMO SELF ASSESSMENT TOOL | TRAINING | CAPABILITY BROCHURES

Functional areas covered:

1. Governance & Assurance
2. Project Establishment
3. Scope Management
4. Schedule Management
5. Cost Management
6. Reporting & Analysis
7. Cost Estimating
8. Baseline Management & Change Control
9. Supplier Integration
10. Risk, Issue & Opportunity Management
11. Earned Value Management

Scope Works Earned Value Mgt Blue Card: Great IBR EVM Training Tool

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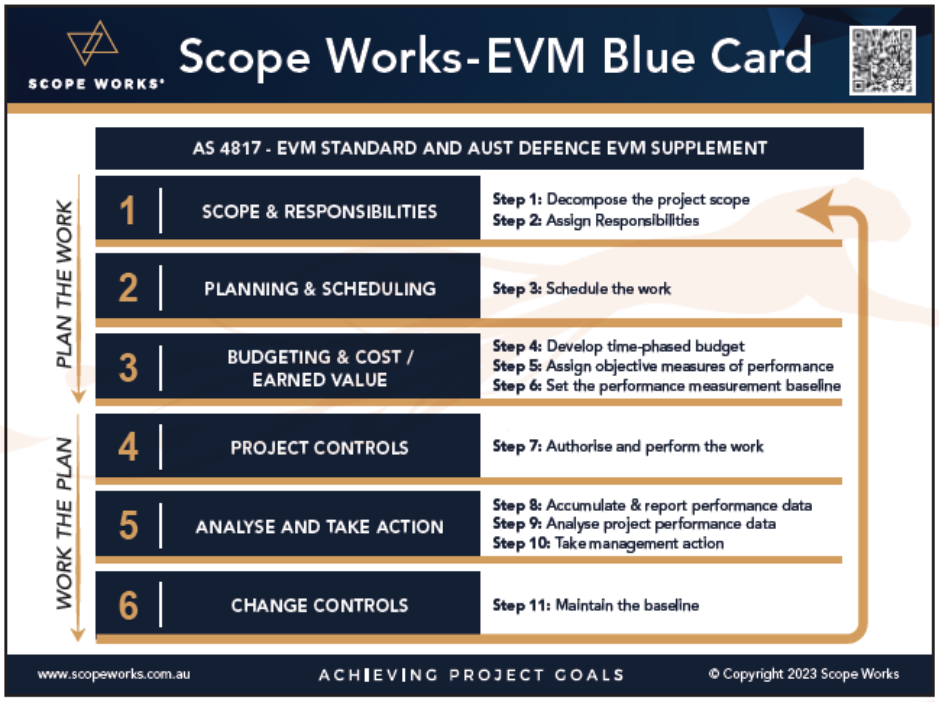

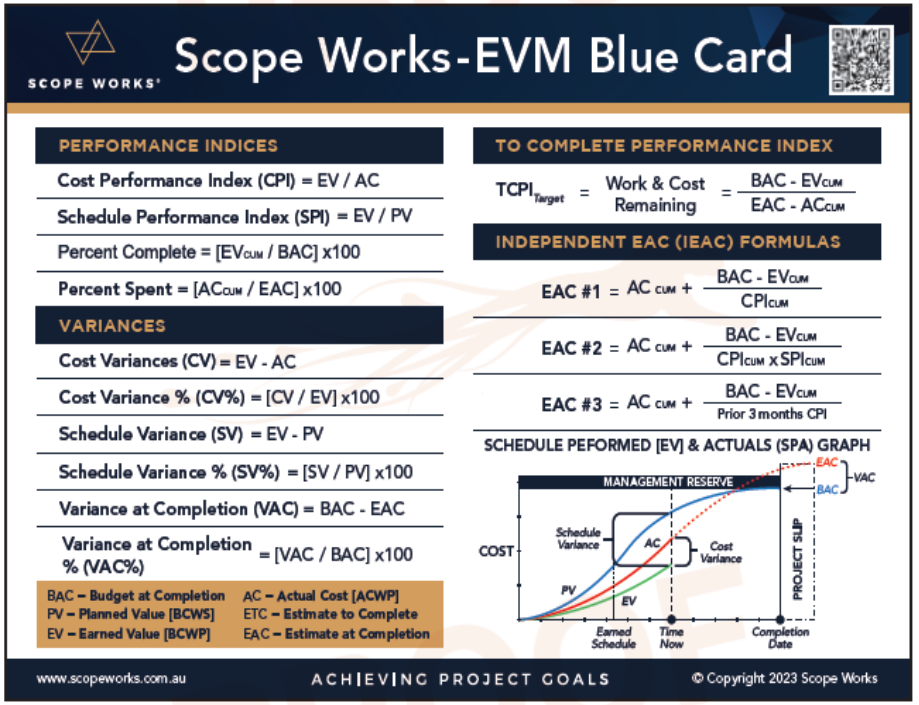

Introductions

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- **Quick round the room:**
  - What is your background?
  - How familiar are you with Earned Value and Integrated Baseline Reviews?
  - What motivated you to attend this masterclass?
  - What is the one thing you would like to gain clarity on today?

Masterclass Objectives

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- **Understand the core purpose and value of an IBR**
- **Explore Defence and Industry perspectives on baseline validation**
- **Examine how IBRs enhance governance, assurance, and delivery confidence**
- **Identify and integrate risk insights within Defence and Industry approaches**
- **Share lessons learned to strengthen collaboration and program outcomes**

IBRs are a shared responsibility and a shared opportunity

Welcome and Strategic Context

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- **Why IBRs Matter**
  - Increasing complexity in Defence programs
  - The link between validated baselines and national capability
  - Shared responsibility – Defence and Industry is needed for delivery success

Core purpose of an IBR

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- **Establishing a realistic, executable baseline**
- **Validating assumptions, schedules, budgets, and risk posture**
- **Applicability with or without formal EVM requirements**
  - If no formal EVM requirement, still need to demonstrate integration of Scope, Schedule, Resources, Costs (Budget & EAC) and Objective Performance (Schedule & Cost Variances), Risk & Baseline Management
- **Building transparency and shared understanding**

A credible baseline is the foundation for delivery confidence

Earned Value Management (EVM)

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Earned Value Management:

- is a set of best practice project management principles that integrate Cost, Schedule and Technical Performance
- establishes objective measures of the actual work achieved compared to the plan for that work
- is mandated in CASG policy, with the level of application decided depending upon contract value, risk and duration

EVM “S” Curve

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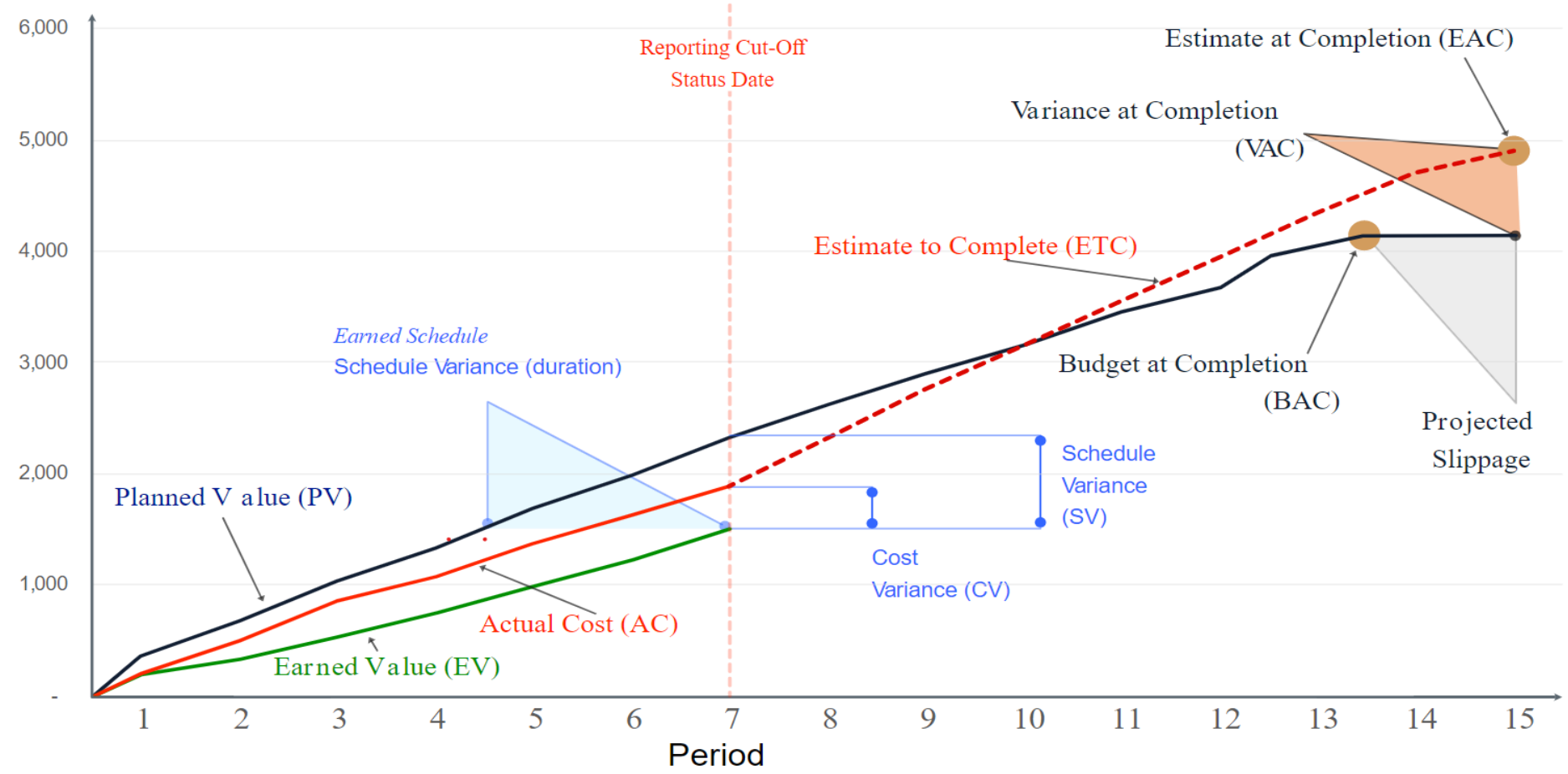
SP A Graph : Schedule, Performed, Actuals



Role of EVM

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EVM plays a crucial role in answering the following management questions critical to the success of the project:

- Are we delivering more or less work than planned?
- When is the project likely to be completed? Will we meet the major project milestones and deliveries?
- Are we behind or ahead of schedule?
- Are we over or under budget?
- What is the remaining work likely to cost? What will the entire project likely to cost?
- What is driving the significant cost and/or schedule variances? And what are we doing to address them?

Earned Value Mgt System (EVMS): AS-4817 11 Step Lifecycle

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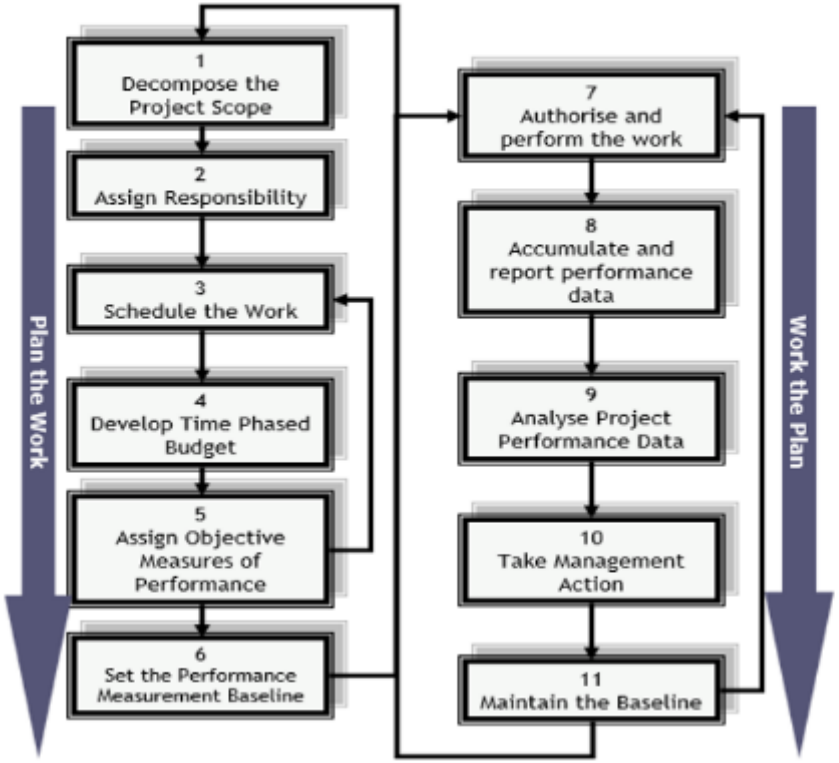
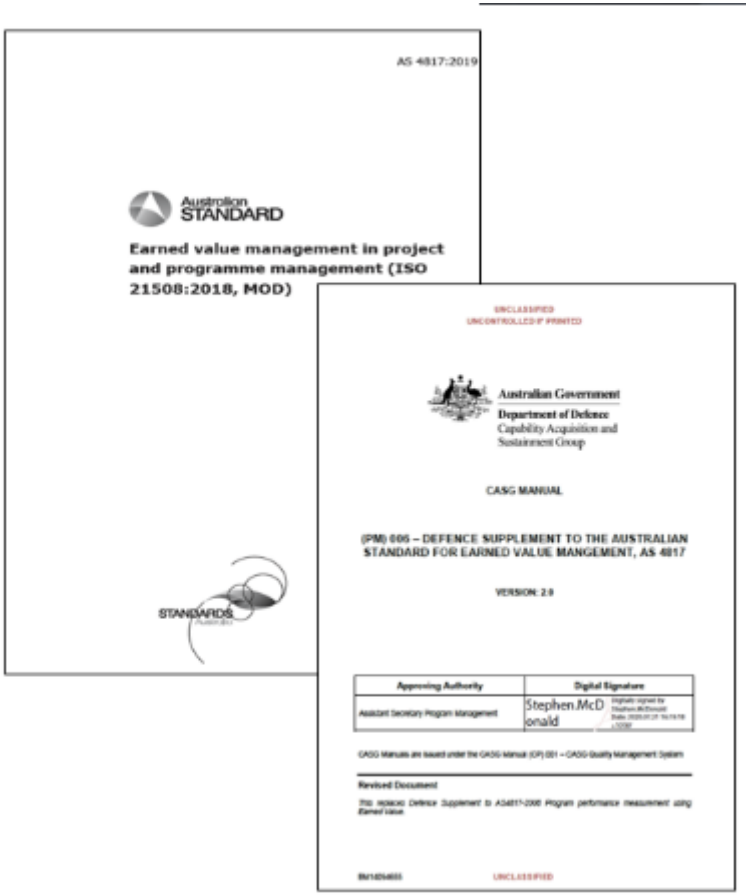
- AS4817 & Defence Supplement Standards specifically lists many Best Practice "Must" Requirements against below 11 Step Model




AS 4817:2019

Australian STANDARD

Earned value management in project and programme management (ISO 21508:2018, MOD)

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Capability Acquisition and Sustainment Group

CASG MANUAL

(PM) 005 – DEFENCE SUPPLEMENT TO THE AUSTRALIAN STANDARD FOR EARNED VALUE MANGEMENT, AS 4817

VERSION: 2.0

Approving Authority	Digital Signature
Assistant Secretary Program Management	Stephen McDonald

CASG Manuals are issued under the CASG Manual (CP) 001 – CASG Quality Management System

Revised Document

This replaces Defence Supplement to AS4817-2006 Program performance measurement using Earned Value

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EVM/ IBR AS-4817 11 Steps Framework

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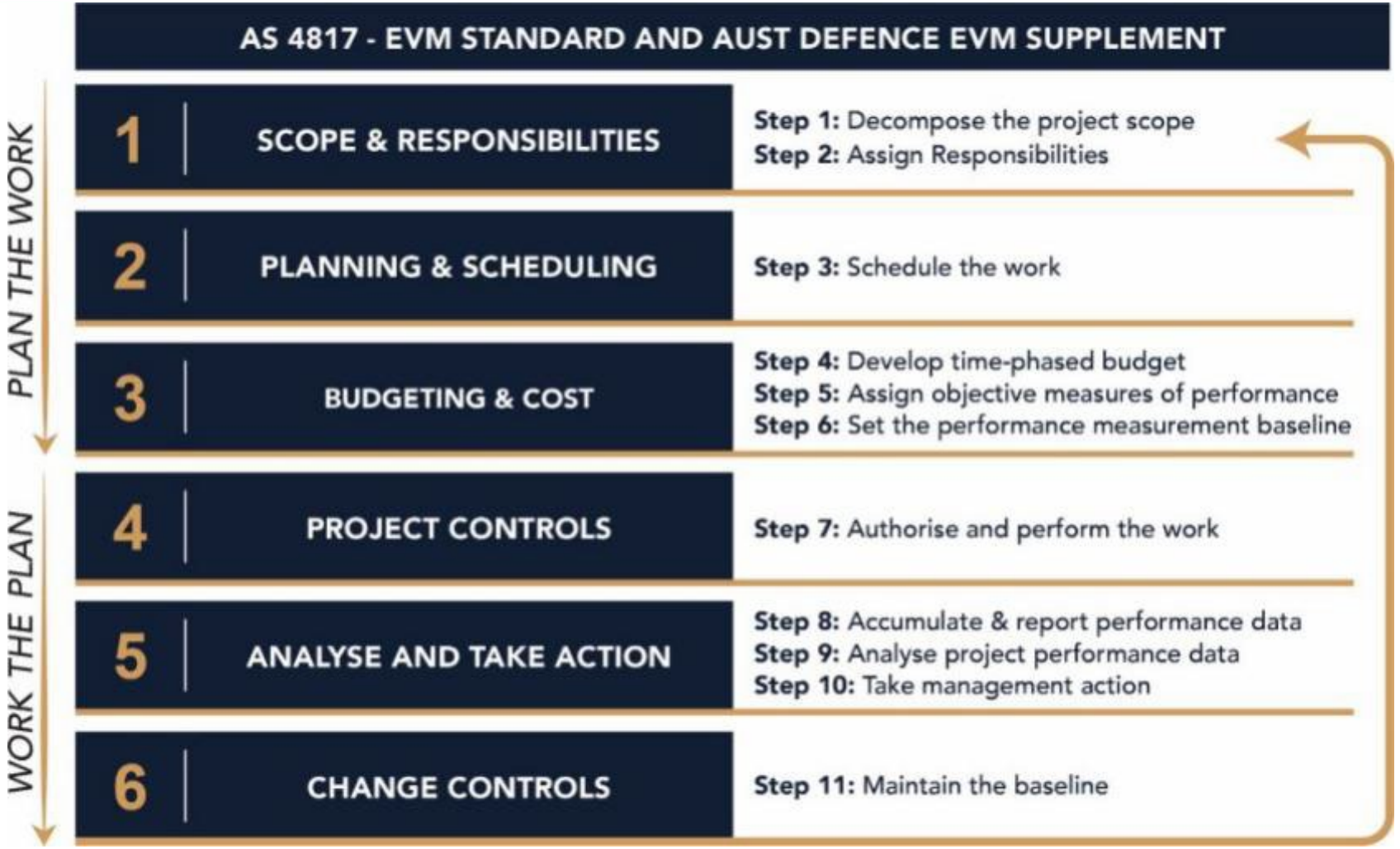

EVM/ IBR AS-4817
Key Earned Value Metrics

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PERFORMANCE INDICES

Cost Variance Index (CPI) = EV / AC

Schedule Performance Index (SPI) = EV / PC

Percent Complete = [EV_{CUM} / EAC] x100

Percent Spent = [AC_{CUM} / EAC] x100

VARIANCES

Cost Variances (CV) = EV - AC

Cost Variance % (CV%) = [CV / EV] x100

Schedule Variance (SV) = EV - PV

Schedule Variance % (SV%) = [SV / PV] x100

Variance at Completion (VAC) = BAC - EAC

Baseline Execution Index (BEI) = $\frac{\text{\# Tasks Completed}}{\text{\# Tasks Scheduled for Completion}}$

BAC = **Budget at Complete**	AC = **Actual Cost [ACWP]**
PV = **Planned Value [BCWS]**	ETC = **Estimate to Complete**
EV = **Earned Value [BCWP]**	EAC = **Estimate at Complete**

TO COMPLETE PERFORMANCE INDEX

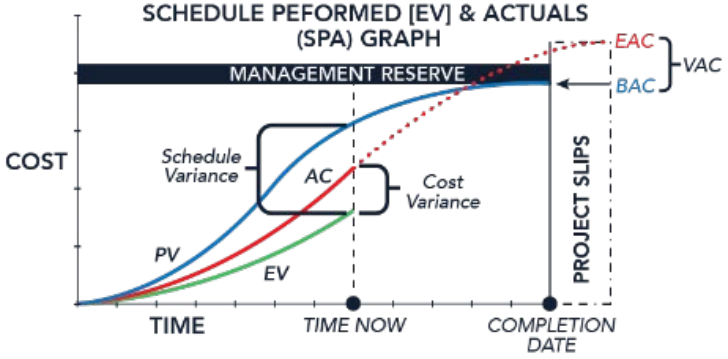
$$TCPI_{Target} = \text{Work \& Cost Remaining} = \frac{BAC - EV_{CUM}}{EAC - AC_{CUM}}$$

INDEPENDENT EAC (IEAC) FORMULAS

$$\textbf{EAC \#1} = AC_{CUM} + \frac{BAC - EV_{CUM}}{CPI_{CUM}}$$

$$\textbf{EAC \#2} = AC_{CUM} + \frac{BAC - EV_{CUM}}{CPI_{CUM} \times SPI_{CUM}}$$

$$\textbf{EAC \#3} = AC_{CUM} + \frac{BAC - EV_{CUM}}{\text{Prior 3 months CPI}}$$



Scope Works Earned Value Management Practioner Training – Tailored for CoA & Primes

What is an IBR

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- An Integrated Baseline Review (IBR) is a joint, formal assessment conducted by Defence with Industry to ensure the Performance Measurement Baseline (PMB) is realistic, well-defined, and properly linked to the contract scope, cost, and schedule. It validates that technical, schedule, and cost risks are understood and managed
- The goal of the IBR is for the Defence and Industry to achieve a shared understanding of the risks inherent in the PMB and the management control processes needed to execute the program.
- The IBR focuses on understanding the realism of performing to the Performance Measurement Baseline

IBR Major Objectives

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- Verify technical content for completeness
- Review schedule for achievability
- Review budget for adequacy (including Resources)
- Ensure appropriate EV methodology
- Identify risk (technical, schedule, cost) and ensure mutual understanding
- Review management processes

Intention of the IBR

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- IBR is a collaborative process, not a "pass/fail" audit.
- It is designed to set the project up for success.
- Lays a solid foundation for mutual understanding of project risks
- Provides the project team with a thorough understanding of the project plan, allowing early intervention and the application of resources to address any project challenges

Commonwealth IBR Objectives

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- Ensure that the complete Contract scope of work is covered in the Contract Work Breakdown Structure (CWBS);
- Assess whether the technical scope can be accomplished within baseline cost and schedule constraints and that resources have been appropriately distributed to the Contract tasks;
- Assess that there is a logical sequence of effort that supports the Contract schedule;
- Identify areas of risk in resource allocations and in the technical performance of the Contract and understand the cost and schedule implications of that risk;
- Assess the validity and accuracy of the Contractor's baseline by examination of at least one Earned Value Performance Report (EVPR);
- Review proposed Earned Value Techniques (EVTs) to be used to measure and report progress to ensure that the measures are appropriate and will provide meaningful indicators of work completed;
- Improve Commonwealth understanding of the Performance Measurement Baseline (PMB), resulting in a better appreciation of the Contractor's performance management process and the techniques used to measure performance and improved partnering throughout the Contract and reduce misunderstandings.

Approval of the PMB

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- **Approval of the contractor's PMB** is a major focus of the Integrated Baseline Review. An effective PMB must:
  a. fully integrate cost, schedule and technical objectives at each level of the CWBS;
  b. identify appropriate and objective measurement techniques to determine progress;
  c. be based on a product and services structured CWBS in which products are traceable to the engineering specification tree;
  d. show clear accountability for the delivery of working products that meet the specification through the use of a nominated manager for each product in the product hierarchy;
  e. capture all of the technical and schedule requirements of work consistent with the entire contract scope; and
  f. have adequate and appropriately skilled resources assigned.

IBR and EVM Review Processes

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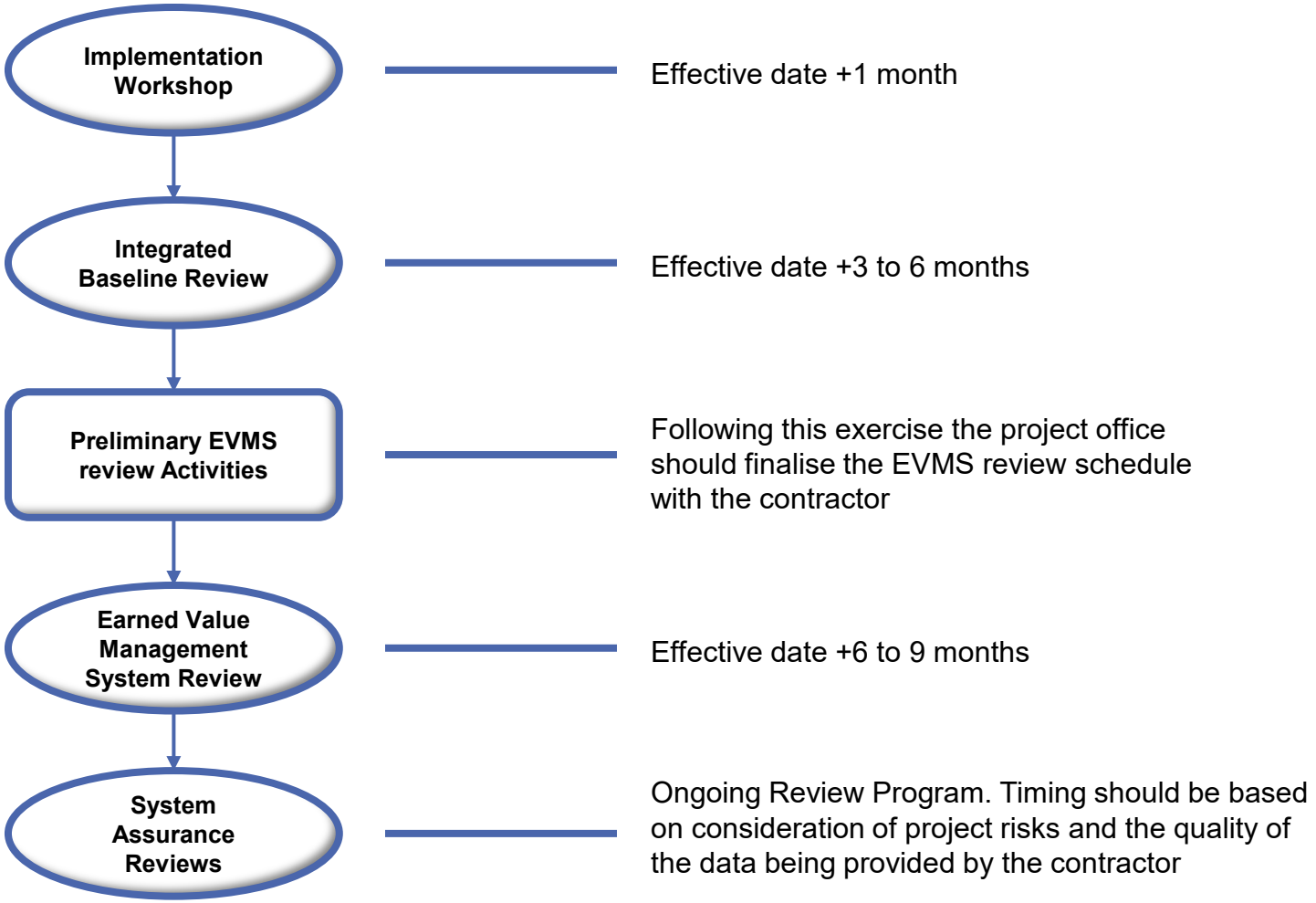

IBR & EVMS System Implementation Overview

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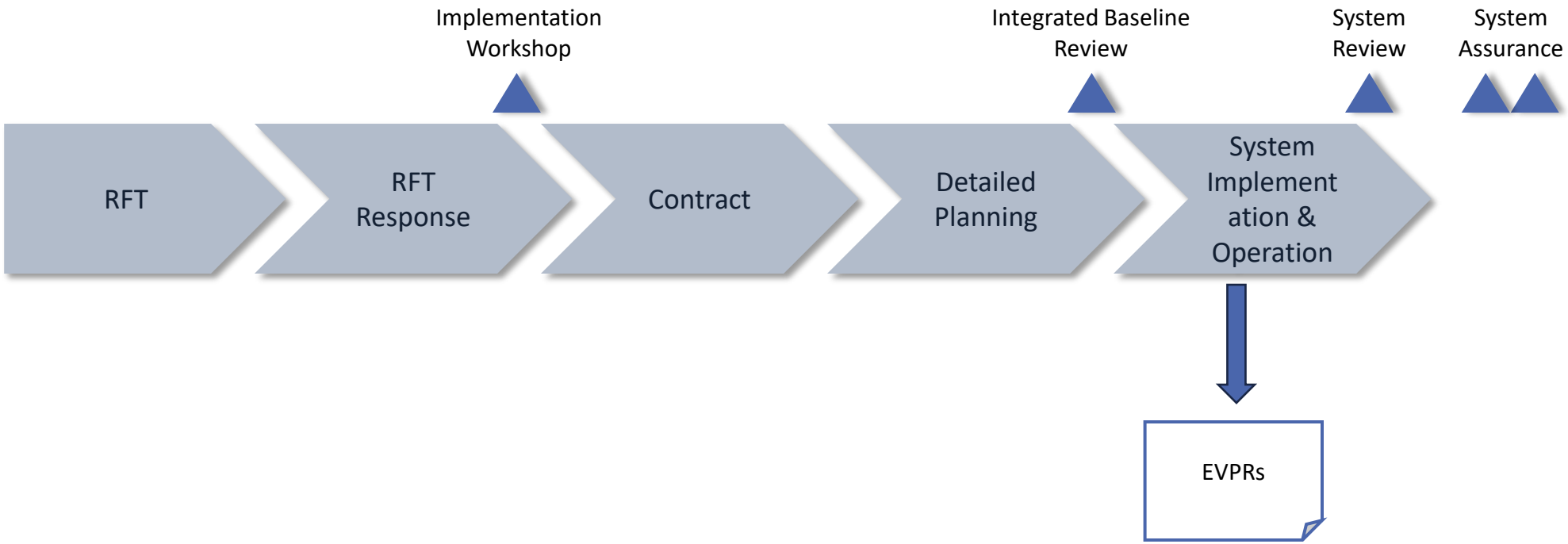

CASG Integrated Baseline Review (IBR) Process

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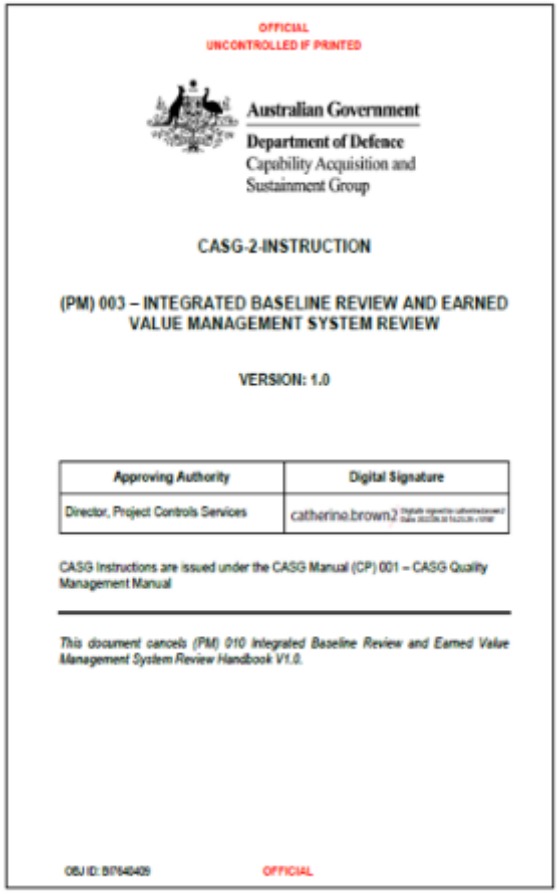
- (PM) 003 - IBR & EVM System Review Instruction



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Capability Acquisition and Sustainment Group

CASG-2-INSTRUCTION

(PM) 003 – INTEGRATED BASELINE REVIEW AND EARNED VALUE MANAGEMENT SYSTEM REVIEW

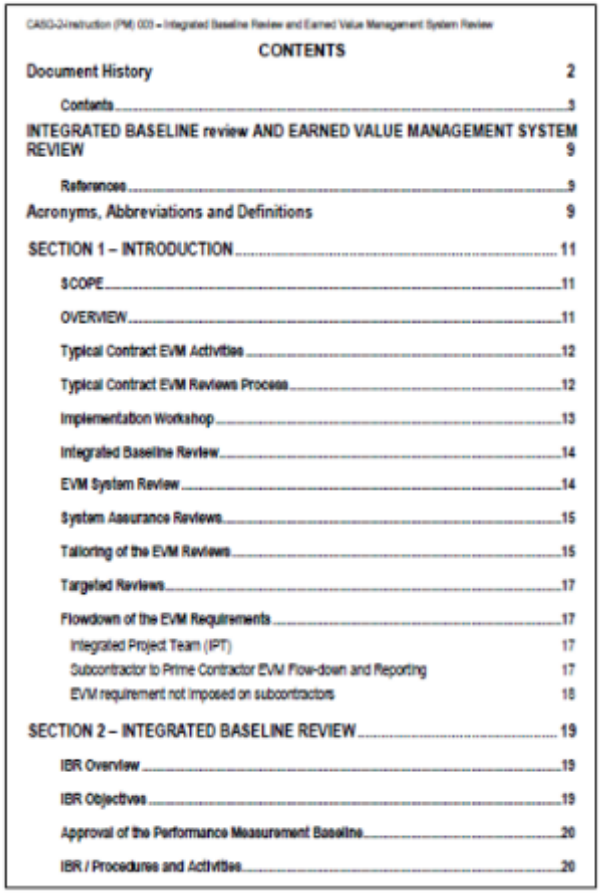
VERSION: 1.0

Approving Authority	Digital Signature
Director, Project Controls Services	catherine.brown2

CASG Instructions are issued under the CASG Manual (CP) 001 – CASG Quality Management Manual

This document cancels (PM) 010 Integrated Baseline Review and Earned Value Management System Review Handbook V1.0.

OBJ ID: BI7648409 OFFICIAL



CASG-2-Instruction (PM) 003 – Integrated Baseline Review and Earned Value Management System Review

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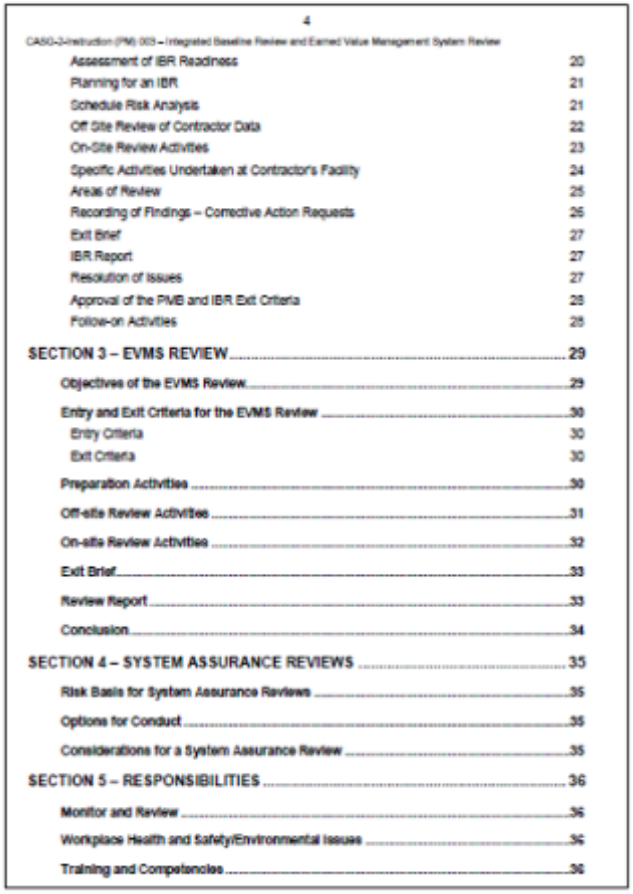

CoA Integrated Baseline Review (IBR) Process

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- **(PM) 003 – CASG IBR & EVM System Review Instruction**

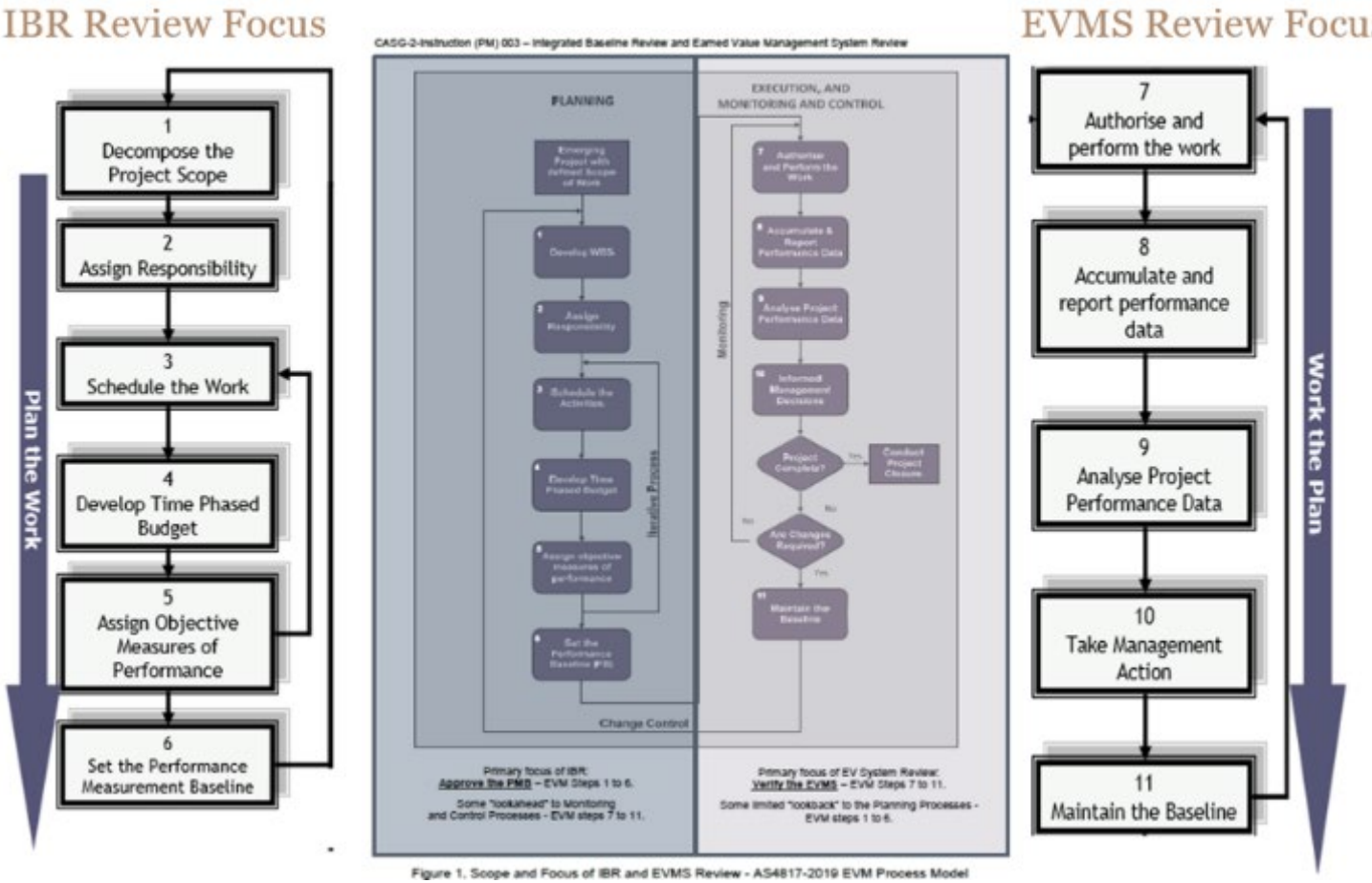

Figure 1. Scope and Focus of IBR and EVMS Review - AS4817-2019 EVM Process Model

IBR Review – MSR IBR Checklist Criteria

106 Criteria Questions - Technical, Scope, Schedule, Basis of Estimates, Budget, Earned Value, Risk

REVIEW ENTRY CRITERIA

Item	Entry Criteria	Status
1.	All data items required to be delivered before IBR have been delivered (including the IBR agenda, the EVM System documentation, and at least one complete Earned Value Performance Report (EVPR)), and the Commonwealth Representative considers these documents to be suitable for the purposes of conducting IBR.	Mandatory
2.	The CWBS reflects the entire scope of work for the Contract and is defined to an appropriate level of detail. The delivered CWBS complies with the requirements of DID-PM-DEF-CWBS.	Mandatory
3.	Subcontractor baselines, where applicable, have been incorporated into the PMB, and IBRs on those Subcontractors have been successfully completed by the Contractor.	Mandatory
4.	Risks with the potential to impact upon the viability of the PMB have been identified and documented, including any assumptions that may need to be referenced in the future.	Mandatory
5.	Action items from any previous System Reviews or prior risk-reduction activities (eg, an Offer Definition and Improvement Activities phase), which affect IBR, have been successfully addressed or action plans agreed with the Commonwealth Representative.	Mandatory

REVIEW EXIT CRITERIA

Item	Exit Criteria	Status
1.	All checklist items have been addressed to the satisfaction of the Contractor and the Commonwealth Representative.	Mandatory
2.	All major problem and risk areas have been identified and resolved and, for minor problems and risks, corrective action plans have been recorded and agreed by the Commonwealth Representative.	Mandatory
3.	The PMB has been Approved.	Mandatory
4.	Plans for the measurement and analysis program for the next phase have been agreed by the Commonwealth Representative, including the measures to be collected, associated collection methods, and analysis techniques.	Mandatory
5.	All risks identified during the course of IBR have been documented and analysed.	Mandatory
6.	The risks with proceeding to the next phase are acceptable to the Commonwealth Representative.	Mandatory
7.	All major corrective action requests have been closed.	Mandatory
8.	All minor corrective action requests have been documented and assigned with agreed closure dates.	Mandatory
9.	Review minutes have been prepared, Approved, and distributed in accordance with the Contract.	Mandatory

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EVM System & Training

16.	Do the CAMs and Work Package managers have an adequate understanding of EVM and its implementation for the Contract, including the proposed tools to be used?	Mandatory
105.	Is the company EVMS adequate to meet contractual requirements?	Mandatory
106.	If applicable, is the integrity of the PMB sound enough to support payment by earned value?	Mandatory

Scope & Responsibilities

7.	Is the CWBS structured around the major products to be delivered under the Contract (eg, Mission Systems) and is the breakdown of each Mission System in the CWBS consistent with the product breakdown structure for that Mission System?	Mandatory
8.	Is the CWBS and associated CWBS Dictionary internally consistent (ie, no overlaps or gaps)?	Mandatory
9.	Does the CWBS Dictionary clearly describe the full scope of work for each CWBS element?	Mandatory
13.	Has responsibility been assigned for each Control Account and Work Package (eg, through the Organisation Breakdown Structure (OBS) or the Responsibility Assignment Matrix (RAM)) to an appropriate Control Account Manager (CAM) and Work Package manager, respectively?	Mandatory
14.	Is the work assigned to one responsible organisation in a manner that represents the way in which work is to be performed?	Mandatory
15.	Is the RAM consistent with Control Account authorisations?	Mandatory
19.	Are the work authorisation documents consistent with the SOW, CWBS and CWBS Dictionary?	Mandatory
20.	Is the organisation assigned in the RAM, also the responsible organisation identified in the work authorisation documents?	Mandatory
21.	Are the work authorisation documents approved and signed by the responsible functional managers designated in the RAM?	Mandatory

Variance Analysis

90.	Are the cumulative variances either explained and corrective action plans in place or are the variances reflected in the EAC?	Highly Desirable
93.	Are variance reports being generated that allow for effective management?	Mandatory

Risk Management

22.	Are the Contractor's risk treatments, which involve work, identifiable in the CWBS?	Mandatory
23.	Is the process for risk management clearly defined and understood? Do CAMs understand processes for elevating risks, communicating changes, and statusing their progress?	Mandatory
24.	Is the process for escalating issues within teams and between teams defined and understood?	Mandatory

Change Control

94.	Are changes incorporated correctly and in a timely manner? Does traceability exist between the Control Account(s), change requests, MR, UB as appropriate (including current budget to original budget)?	Mandatory

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Planning & Scheduling

25.	Is the CMS derived from, and traceable to, the CWBS?	Mandatory
26.	Does the draft CMS comply with DID-PM-DEF-CMS?	Mandatory
27.	Does the CMS represent a logical sequence of activities to satisfy the Contract requirements?	Mandatory
28.	Does the CWBS capture a feasible integration and test strategy and is this reflected in the CMS with appropriate linkages and timescales?	Mandatory
29.	Is the CMS structurally sound (eg, are all tasks suitably linked, have the appropriate precedence relationships, and minimise the use of forced constraints, such as 'must start on')?	Mandatory
30.	Does the CMS comply with any Contract constraints (eg, production cannot commence until Verification of the first article is complete)?	Mandatory
31.	Does each task in the schedule have a well-defined outcome or deliverable (with the exception of level-of-effort tasks)?	Mandatory
32.	Does the CMS identify all Commonwealth interactions and dependencies that impact upon the Contract timeframes (eg, delivery of Government Furnished Material (GFM) and Government Furnished Services (GFS), attendance at System Reviews and review of data items)?	Mandatory
33.	Are the Commonwealth's interactions and dependencies in the CMS (eg, for GFM and GFS) tied to the Contractor's CMS activities that reflect the Contractor's actual need / consumption points?	Mandatory
34.	Are significant decision points, constraints, and interfaces identified as key milestones in the CMS?	Mandatory
35.	Are the Planning Packages readily identifiable? Have the Planning Packages been defined appropriately, such that they are neither too general nor too large in scope, value, and duration?	Mandatory
36.	Are the lower-tier schedules vertically traceable to the CMS?	Mandatory

40.	Are all of the dependencies between Control Accounts clearly defined in the CMS, and is the meaning / expectations of each dependency clearly understood by each CAM and reflected in their respective plans?	Mandatory
41.	Have all internal and external dependencies been identified and assessed for feasibility? (External dependencies include interfaces, facilities, works and other services, etc.)	Mandatory
42.	Does the CMS include sufficient contingency to absorb "normal" variance (eg, expected levels of rework) as well as some level of unanticipated events?	Mandatory
43.	Has the CMS been constructed bottom up from quantitative estimates, not driven by predetermined dates?	Mandatory
44.	Has the CMS been resource levelled to reflect realistic staff availability, including Contract ramp-up, staff leave/absences, public holidays, training, Contract ramp-down, etc?	Mandatory
45.	Have the critical and near-critical path activities been identified?	Mandatory
46.	Have the implications of parallel activities in the schedule been analysed to produce a clear understanding of the risks, including resource overlaps?	Mandatory
47.	Has schedule risk analysis been undertaken to assist in evaluating whether the schedule is achievable?	Mandatory
48.	Are the Subcontractor's schedules vertically and horizontally integrated with the CMS?	Mandatory
49.	Does the schedule reflect learning curve inefficiencies?	Mandatory
50.	Where available, have purchase orders, drawing releases, Subcontract schedules and material ordering schedules been examined to confirm consistency between the order and delivery dates and between material milestones and material EVTs?	Mandatory
107.	Are the breakdown and the scheduling of activities in the CWBS and CMS consistent with the AIC Plan, and vice versa?	Highly Desirable

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Basis of Estimates

37.	Are the estimates for task times and resource requirements for both Work Packages and Planning Packages stable, reasonable and precedented? Are these task times and resource requirements based on sound estimating principles and practices (eg, historical, quantitative, performance estimates)?	Mandatory
38.	Have the task times and resource requirements for the higher-risk tasks (eg, software-development activities) been validated using multiple methods (eg, historical data and software-estimating models and tools)?	Mandatory
39.	Is the basis of estimate for all task times and resource requirements for both Work Packages and Planning Packages documented and agreed by those who will be doing the work?	Mandatory
42.	Does the CMS include sufficient contingency to absorb "normal" variance (eg, expected levels of rework) as well as some level of unanticipated events?	Mandatory
43.	Has the CMS been constructed bottom up from quantitative estimates, not driven by predetermined dates?	Mandatory
44.	Has the CMS been resource levelled to reflect realistic staff availability, including Contract ramp-up, staff leave/absences, public holidays, training, Contract ramp-down, etc?	Mandatory

Resources

51.	Is the Contractor's staff/skills profile reasonable, achievable, and derived from the CMS (particularly for critical skills where there may be known shortages, such as systems engineers, software engineers and integrated logistic support staff)?	Mandatory
52.	Has the dependence on Key Persons been addressed in the schedule?	Mandatory
53.	Are the resources required to meet the schedule available (including personnel, facilities, subcontractor capacity, etc)?	Mandatory

Rework

67.	For any aspects of the Contract where there is a high probability of rework occurring within scope (eg, document revisions and retesting), has appropriate provision for that work been included in the PMB?	Mandatory
68.	Where rework is likely to be required, do the Contractor's procedures ensure that zero-budget Work Packages will not be used and that budget will be assigned, the effort planned and performance measured?	Mandatory

Budgeting

54.	Are Control Accounts adequately described, budgeted and decomposed to perform the work?	Mandatory
55.	Are the CMS and PMB integrated? Is the scheduling system integrated with the budgeting and cost accumulation systems?	Mandatory
56.	Are the schedule(s) and PMB identical in planning and consistent in their representation of progress?	Mandatory
57.	Are Contractor staff able to substantiate their budgets in terms of the total amount (dollars or hours), mix of resources and time-phasing?	Mandatory
58.	Is the phasing of the budget consistent with the schedule for achieving the work?	Mandatory
59.	Are the budgets assigned to Planning Packages distributed appropriately to reflect the expected outcome of detailed planning?	Mandatory
60.	Are there adequate procedures for converting a Planning Package into a Work Package, including for the establishment of EVTs for new Work Packages?	Mandatory
61.	Are budgets allocated once and summed appropriately through the EVMS?	Mandatory
62.	Are all budgeting documents consistent throughout the EVMS? Is the budget information in the work authorisation documents, the RAM, and the internal performance measurement reports reconcilable? Are the amounts on internal reports consistent with the external report being forwarded to the Commonwealth?	Mandatory
63.	Are Control Accounts broken down into different cost elements (eg, labour, materials, and other direct costs)?	Mandatory
64.	Is Management Reserve (MR) clearly identified as such? Is the amount of MR consistent with the Contractor's assessment of risk?	Mandatory
65.	Are appropriate arrangements in place for the management of MR, including authorising its use?	Mandatory
66.	If MR or Undistributed Budget (UB) has been utilised, do the transfers reconcile with EVPR amounts?	Highly Desirable

Overheads

103.	Have overheads / indirect costs been appropriately apportioned to the Contract?	Mandatory
104.	Does a process exist for monitoring performance against overheads?	Mandatory

CoA Integrated Baseline Review (IBR) Process

SCOPE WORKS
ACHIEVING PROJECT GOALS

Earned Value

69.	Have the Work Packages been established so that, if different elements of cost (eg, labour and materials) have been included in a Work Package, a variance in the performance of one element will not make an assessment of earned value misleading or inaccurate?	Mandatory
70.	Do the Control Accounts identify EVTs at Work Package level (or lower) to enable effective measurement of progress?	Mandatory
71.	Are the EVTs objective, verifiable, and appropriate for the nature of the work being undertaken, including the length of each Work Package?	Mandatory
72.	Will progress being reported using the EVT correlate with technical achievement?	Mandatory
73.	Are the EVTs consistent with the measures identified in the Information Needs and Measures Specification (where a Measurement Plan or a stand-alone Information Needs and Measures Specification are a requirement of the Contract)?	Mandatory
74.	Where the EVT is identified as 'percent complete', does the CAM have objective measures to identify the progress at a lower level?	Mandatory
75.	Where progress has been claimed, is it in accordance with the EVT identified?	Mandatory
76.	Are the EVTs to be used for measuring Subcontracted effort appropriate?	Mandatory
77.	Is the Level of Effort (LOE) content of Control Account budgets only applied where appropriate?	Mandatory
78.	Is the percentage of LOE across the Contract budget less than 20%? This percentage should be calculated across Contractor labour (ie, with materials and other costs (eg, Subcontractors) removed).	Mandatory
79.	Do Control Account status sheets reflect that progress is being claimed appropriately?	Mandatory
80.	Are the time-phased budgets (PVs) for the same Work Packages consistent with the start and finish dates on the baseline schedule?	Mandatory
81.	Are actual costs are being recorded in the same period as the related performance?	Mandatory
82.	Are the Control Account or WBS Element start and finish dates on the Control Account Plans are consistent with the baseline schedule dates?	Mandatory
83.	Is the progress recorded on the schedule reconcilable to the earned value?	Mandatory
84.	Wherever schedules are updated or forecast completion dates amended by CAMs, are these changes reflected in supporting schedules?	Mandatory
85.	Are any discrepancies between schedule progress and earned value able to be explained to ensure that they are consistent?	Mandatory
86.	Are changes to the schedule(s) appropriately controlled?	Mandatory
87.	Is the data reliable and producing information useful for management decisions? Is earned value being claimed in the same manner in which it was planned?	Mandatory

Subcontract & Materials Mgt

95.	Is Subcontractor earned value data being appropriately incorporated into the Contractor's EVMS?	Mandatory
96.	Are appropriate methodologies being employed by the CAMs to verify Subcontractor progress and manage their performance?	Mandatory
97.	Is material being tracked effectively?	Mandatory
98.	Are the budgets for material time-phased to support schedule requirements?	Mandatory
99.	Is material managed against the original estimated requirement?	Mandatory
100.	Are the systems for managing material integrated?	Mandatory
101.	Is EAC data updated to account for actual material costs incurred and/ or committed?	Mandatory
102.	Is the process used to track material issued from the Contractor to the Subcontractor for work appropriate (and vice versa)?	Mandatory

EAC's

88.	Is the Estimate At Completion (EAC) being updated and providing meaningful indication of the likely outcomes?	Mandatory
89.	Is the effect of all known Contractor risks incorporated into the EAC?	Mandatory
90.	Are the cumulative variances either explained and corrective action plans in place or are the variances reflected in the EAC?	Highly Desirable
91.	Do the Actual Costs (AC) not exceed the EAC amounts for completed Control Accounts or Work Packages?	Mandatory
92.	Does the EAC include Subcontractor updates for actual costs, material values, etc?	Mandatory

Challenges for the IBR Review

SCOPE WORKS
ACHIEVING PROJECT GOALS

- **What Works**
  - Early engagement
  - Clear expectations
  - Transparent risk discussions
- **What Commonly Derails IBRs**
  - Unvalidated assumptions
  - Incomplete data
  - Misaligned expectations
- **Strategies for Success**
  - Strengthen collaboration
  - Standardise preparation
  - Focus on risk-informed delivery

IBR Lessons Learned: Feedback from Peers

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ACHIEVING PROJECT GOALS

Common IBR Focus Areas & Lessons Learned

- **Scope Definition**
  - CWBS “Product Based”, not functional
  - Accurate mapping of SOW to WBS/Control Accounts
  - CWBS Reporting Level appropriate for CoA visibility
  - Watch out for Super CAM’s that don’t have ”effective control” of Scope, Budget & Performance
- **Budgeting**
  - Basis of Estimate (BOE): Justified, documented
  - BOE’s/Budgets include Likely Rework, Risk for SW, Integration, sufficient testing
  - The PMB should have a reconciliation back to the Bid
  - How work is Authorised and Scope, Budget, RAA Controlled
  - How Management Reserve (MR) will be controlled, sufficiency given Risks

IBR Lessons Learned: Feedback from Peers

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Common IBR Focus Areas & Lessons Learned (Continued)

- **Planning & Scheduling**
  - Schedules Linked (Vertical, Horizontal Integration), Include Subcontractor/GFx
  - Critical path, Float, Resource Headcount analysis (including output of the Schedule Risk Analysis);
  - Resource demand vs Capacity planning
  - Ensure Work is Properly Authorised

IBR Lessons Learned: Feedback from Peers

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ACHIEVING PROJECT GOALS

Common IBR Focus Areas & Lessons Learned (Continued)

- **Earned Value**
  - Appropriate Earned Value Techniques (EVT's):
  - % Complete should be Objectively Quantifiable Assessed, Weighted Life-Cycle Steps
  - Watch excessive LOE (None in Discrete Work, never on the Critical Path, 20% max)
  - Watch 0/100 Milestones as no Progress recognised until complete – important for subcontractors where using Payment Milestones with large time gaps in recognizing progress and Schedule Variance
  - Integration of actuals from accounting tool

IBR Lessons Learned: Feedback from Peers

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IBR Scope & Objectives

- IBR is not just an EVM compliance review, it's about the feasibility of the baseline plan to meet contractual commitments, and gaining an acceptance of the risks associated with executing against that plan
- IBR Interviews and Process/ Data Traces needs to include PM, CAMs, Functionals such as Engineering, Production, Finance, ILS, as well as PMO/Project Controls

IBR Lessons Learned: Feedback from Peers

SCOPE WORKS
ACHIEVING PROJECT GOALS

IBR Scope & Objectives (Continued)

IBR may focus on baseline setting processes rather than “operation” processes such as BCRs and variance reporting.

Although early visibility into VAR’s in at least one EVPR Report gives “early” confidence of the PMB and Risks – thus why at least one EVPR is an entry Criteria.

Expectations should be agreed early in IBR build up.

Is an EVM System Review included in the contract? How much cross-over will there be between IBR and EVM System Review?

It is almost impossible to do a combined IBR and EVM System Review in the usual timeframe of 2 to 3 days (tried a couple of times).

IBR Lessons Learned: Feedback from Peers

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ACHIEVING PROJECT GOALS

Conduct of the IBR

- IBR needs to include PM, CAMs, Functionals such as Engineering, Production, Finance, ILS, as well as PMO/Project Controls.
- Best achieved with face-to-face meetings with the people responsible and accountable for the project, not just a data review.
- “Workshop” style reviews can work – but need clear accountability for each Control Account.
- The IBR checklist (MSR) is important as a compliance checking tool, however best if kept in the background and used only when compliance is disputed – let the IBR CAM interviews flow to demo understanding & use.

IBR Lessons Learned: Feedback from Peers

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IBR Flow Down to Subcontractors

- Important to flow down an IBR requirement to major subcontractors. This comes with a number of lessons and challenges;
- Agree the access to data (e.g. Cost and resource planning data) early in the process, or include in contract (best)
- Review team should include PMO/Project Controls, PM, Engineering, Production etc depending on the scope of the project
- Invite the CoA to participate in subcontractor IBR, important for successful prime IBR
- Data and tool integration: clear plan for subcontractor data integration, especially schedule. How are monthly subcontractor updates being integrated?

IBR Lessons Learned: Feedback from Peers

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CAM & IBR Training & Planning

- CAM EVM knowledge is definitely part of the IBR, however expectations need to be set early in IBR build up to allow for training, mentoring and mock interviews
- IBR training of the review team (including CoA staff) is key to a successful IBR.
- Run an internal IBR prior to the external IBR. Good training exercise and will shake out major issues.
- Preparing for IBR requires a significant amount of effort from the project team. This should be included in the BOE. It is never “just something we do anyway” in reality, however is critical for a good investment in a successful project.

Driving Success for Industry

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ACHIEVING PROJECT GOALS

Driving Success for Industry

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- **Planning, Workforce Readiness and Risk Control**
  - Validating scope definition, planning, resourcing and execution strategies
  - Enhancing schedule realism and cost credibility
  - Identifying delivery risks before they escalate
  - Supporting workforce planning and informed decision making

Value of an IBR for Industry

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ACHIEVING PROJECT GOALS

- The IBR verifies that the PMB fully covers the all the technical scope and is executable
- It reduces the risk of an unachievable baseline by giving confidence that the scope, schedule and cost baseline is achievable
- Gives a shared understanding of key constraints, durations and logic, for example, specific schedule sequencing, engineering or supply chain constraints, risks that drive contingency decisions
- Many contractors run internal IBRs prior to the Defence IBR
  - Catch planning errors early
  - Reduce CARS during the formal IBR

Shared understanding

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ACHIEVING PROJECT GOALS

- Helps build trust between Defence and Industry that the transparency of the IBR give credibility to the baseline, and can reduce the likelihood of disputes or disagreements down the track
- A jointly validated baseline becomes the single source of truth for the program
- Industry gains clarity on what is IN or OUT of scope
- Gives Industry the ability to show real-world implications of scope decisions which can reduce later ‘scope creep’

Internal Alignment

SCOPE WORKS
ACHIEVING PROJECT GOALS

- A single source of truth for delivery
- A validated PMB compels cross functional teams to align and operate from the single shared validated plan:
  - the same scope definition
  - the same schedule logic
  - the same assumptions and constraints
  - the same risk picture
  - the same cost basis
- This eliminates the “multiple versions of the plan” problem that drives internal rework and cost leakage

Internal Alignment

SCOPE WORKS
ACHIEVING PROJECT GOALS

- Cross-functional integration of logic and dependencies
  - The IBR process requires engineering, project management, scheduling, risk, commercial, and finance to walk through the baseline together.
  - This exposes:
  - missing handoffs
  - unrealistic durations
  - unacknowledged dependencies
  - resource conflicts
  - sequencing that doesn’t reflect real engineering flow

  - By resolving these early, Industry avoids downstream clashes that would otherwise trigger delays, change requests, or internal firefighting.

Commercial value for Industry

SCOPE WORKS
ACHIEVING PROJECT GOALS

A validated, jointly expressed baseline protects Industry's commercial position and strengthens delivery credibility.

- Hidden cost drivers emerge early
  - Underestimated effort, missing scope, unrealistic durations
- Strengthens the defensible commercial position
  - Early identification of risks and assumptions provides a defensible basis for schedule relief, scope clarification, or funding adjustments before the contract hardens.
  - Reduces the likelihood of later disputes where Defence may argue that the 'contractor should have known' about the unrealistic baseline
- Reduces rework and corrective actions
  - A sound PMB lowers the likelihood of CARs, rebaselines, and recovery plans, each of which carries significant internal cost and reputational impact.

Commercial value for Industry

SCOPE WORKS
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- Lowers the cost of oversight and compliance
  - A credible baselines reduce the intensity of customer oversight, freeing engineering, scheduling, and finance teams to focus on delivery rather than defending the plan.
- Protects future reputation and pipeline
  - Consistent performance against a validated baseline positions the contractor as a lower risk partner for future Defence work.
- Enables more accurate and realistic internal forecasting
  - A realistic PMB enables accurate ETC/EAC, better resource planning, and fewer internal cost shocks.

Case Study Exercise

Helios SuperSystems

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Case Study - Helios SuperSystems

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- Helios SuperSystems is a mid-sized Australian systems engineering and integration company delivering a complex multi-domain upgrade program.
- They are preparing for an upcoming IBR and are experiencing several common Industry challenges.

Case Study - Helios SuperSystems

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- **Scope clarity gaps**
  - Several interfaces, data flows, and boundary conditions remain ambiguous, making it difficult to estimate and sequence work with confidence.
- **Subcontractor integration delays**
  - Two critical subcontractors are still negotiating scope splits and haven't finalised their schedules, leaving the integrated master schedule incomplete.
- **Oversized milestones and work packages**
  - Multiple work packages exceed 100+ days, limiting objective performance measurement and making variance analysis less meaningful.
- **Risk alignment issues**
  - Helios' internal risk posture does not align with Defence's view of program exposure, creating tension around contingency, schedule realism, and risk treatment

Case Study - Helios SuperSystems

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- **What changes would you advise Helios to make to ensure they enter the IBR in the strongest possible position?**

Driving Success for Defence

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ACHIEVING PROJECT GOALS

Driving Value for Defence

SCOPE WORKS
ACHIEVING PROJECT GOALS

- **Governance, Assurance & Risk Insight**
  - Governance confidence
  - Strengthening alignment with EVM principles
  - Surfacing hidden risks early
  - Validating risks and assumptions
  - Improving decision-making through credible performance data

Value of the IBR for Defence

SCOPE WORKS
ACHIEVING PROJECT GOALS

- The IBR verifies that the PMB fully covers the entire contracted scope of work, and can be executed effectively
- It tests whether the technical scope is achievable within the constraints set out by both Industry and Defence
- It shows where resource loading may be unrealistic or insufficient
- It gives insight into the Contractors planning parameters, EVTs and shows the alignment between scope, schedule, cost and performance metrics
- Highlights areas of risk and vulnerability of the program

Baseline Validity

SCOPE WORKS
ACHIEVING PROJECT GOALS

- Gives Defence the ability to create a deeper understanding of the Contractors baseline
- Clarifies how performance is measured, analysed and reported
- Identifies early indicators of fragility in the baseline, or variance trends that are already emerging
- Reduces ambiguity and misunderstanding of definition of DONE

Shared Understanding

SCOPE WORKS
ACHIEVING PROJECT GOALS

- Supports the building of trust between Defence and Industry that the baseline is realistic and achievable
- The agreed baseline becomes the shared single source of truth for the program
- Aligns expectations and validates assumptions

Case Study Exercise

Sentinel Program Office (SPO)

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ACHIEVING PROJECT GOALS

Case Study - SPO

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ACHIEVING PROJECT GOALS

- The Sentinel Program Office (SPO) is responsible for delivering a multi-domain capability upgrade involving software, hardware, and integration across several platforms.
- They are preparing for an IBR with their prime contractor, Helios SuperSystems

Case Study - SPO

SCOPE WORKS
ACHIEVING PROJECT GOALS

- **Incomplete articulation of scope and boundary conditions**
  - Several requirements remain high-level, and some interface definitions are still evolving, making it difficult for Industry to estimate and sequence work with confidence.
- **Internal misalignment across Defence stakeholders**
  - Different branches (engineering, commercial, ICT security, and operations) hold varying assumptions about priorities, dependencies, and acceptable risk levels.
- **Late GFx**
  - Key data sets, reference architectures, and configuration baselines are delayed, creating uncertainty for the contractor's planning.
- **Risk posture mismatch**
  - SPO's risk tolerance is more conservative than Helios', leading to tension around schedule realism, contingency, and risk treatment.
- **Pressure to maintain schedule commitments**
  - Senior leadership expects delivery dates to remain unchanged, even though the baseline is not yet fully validated.

Case Study - SPO

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- **If you were the Sentinel Program Office, what would success in the IBR look like — in terms of governance, assurance, and delivery confidence??**

Participant Questions and General Discussion

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Class Participant Questions

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- **Q1: Discussion about the differences between an IBR and a Tender Evaluation and how to manage the expectations of both CoA and the Primes at these phases of a Contract Lifecycle.**

EVM in the Capability Life Cycle (CLC)

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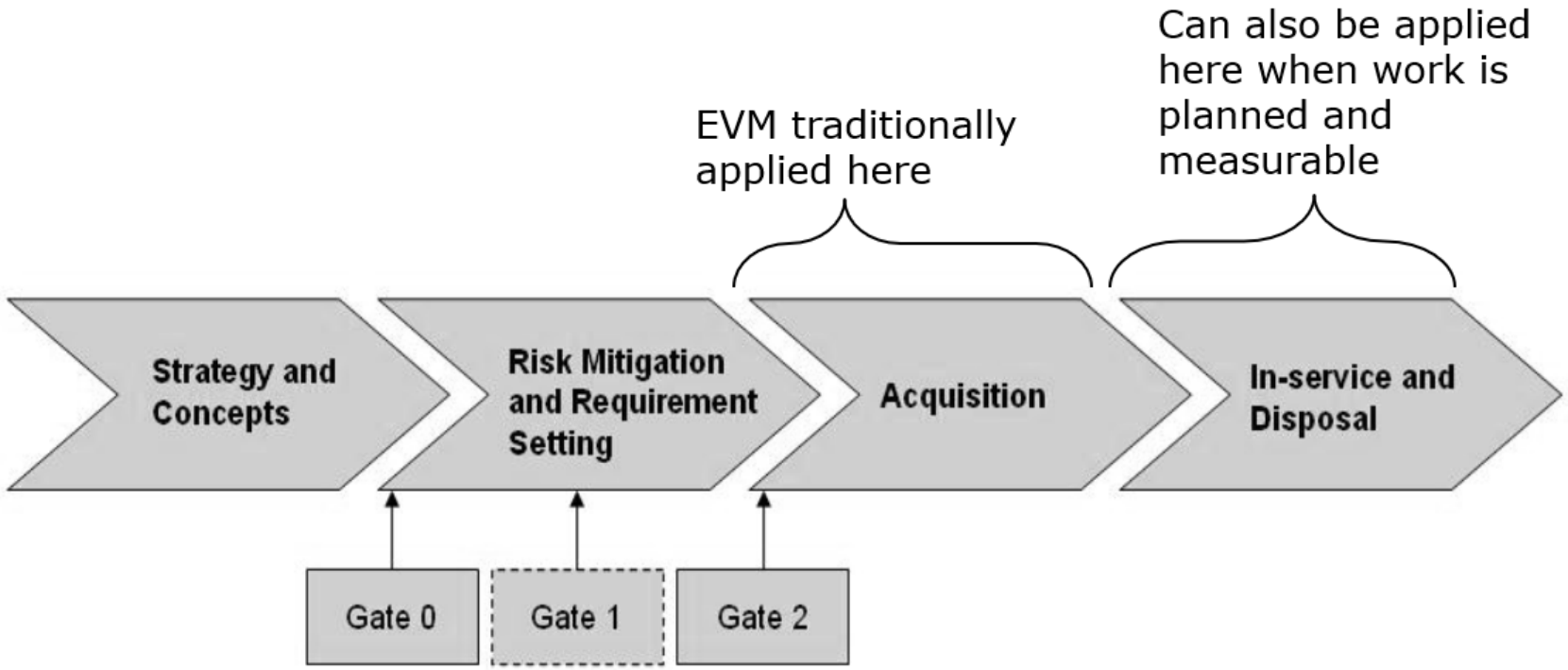

EVM in the Capability Life Cycle (CLC)

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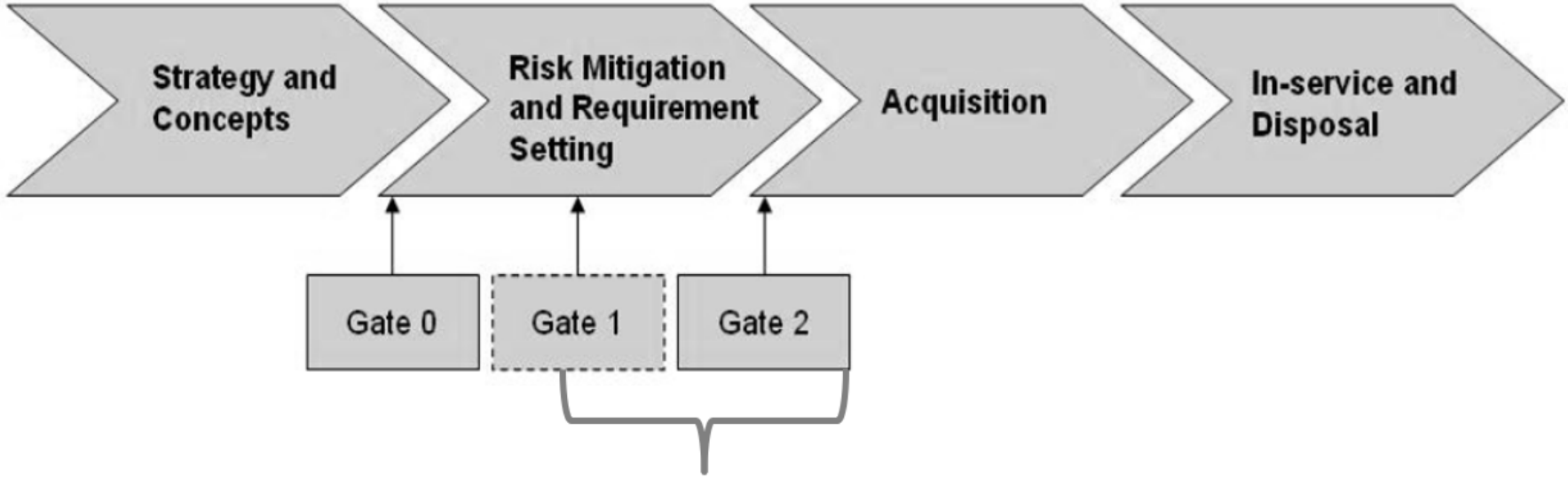

However, EVM Requirements are decided in Gate 1 & 2 Gates

Class Participant Questions

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- **Q2: Discussion about the challenges ensuring the CoA has defined the scope clearly enough for a contractor to interpret, estimate, plan, and execute effectively?**
  Are both parties aligned on the definition and intent?

Class Participant Questions

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- **Q3 Integrated Scheduling:**
- **Misalignments with integration of Subcontractors scope, schedule, objective reporting, too large milestones/work packages**
- **Resourcing – Ensuring realistic headcounts, factoring peaks and troughs, aggressive start ups, resource constraints in critical areas**

Consolidation and Wrap-up

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Consolidated Review and Synthesis

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- **Bringing it all together**
  - Defence and Industry both benefit from validated baselines
  - IBRs strengthen governance and delivery confidence
  - Collaboration accelerates capability outcomes

Lessons Learned: Defence and Industry

SCOPE WORKS
ACHIEVING PROJECT GOALS

- **What Works**
  - Early engagement
  - Clear expectations
  - Transparent risk discussions
- **What Commonly Derails IBRs**
  - Unvalidated assumptions
  - Incomplete data
  - Misaligned expectations
- **Strategies for Success**
  - Strengthen collaboration
  - Standardise preparation
  - Focus on risk-informed delivery

References

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- **AS4817**
- **Defence Supplement to AS4817**
- **(PM) 003 – Integrated Baseline Review And Earned Value Management System Review**

Scope Works IBR Courses & Support

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Course Purpose & Scope

The Integrated Baseline Review (IBR) Course provides:

- In-depth review of the Purpose and Objectives of the CoA Integrated Baseline Review (IBR) – A Mandated System Review
- CASG IBR & EVM System review Instruction set around AS-4817 & Defence Supplement EVM 11 Step Framework
- Understanding the CASG (PM) 003 IBR & EVM System Review Instruction and the IBR Compliance Checklist
- Conducting the IBR Review including conducting process & data traces and CAM IBR interviews
- Preparing the Final IBR Report and Findings – Major/Minor Corrective actions Requests (CAR's)
- IBR Challenges and Lessons Learned

Key Areas Covered

- Objectives of the Integrated Baseline Review (IBR)
- Application of the CASG (PM) 003 IBR and EVMS System Review Practice Process
- Applying the EVM AS4817 & Defence Supplement Eleven step model for the IBR focusing on Steps 1- 6 "Plan the Work":
  - Scope
  - Responsibilities
  - Schedule
  - Budget/Cost
  - EVM
  - Risk
  - Setting the PMB
- Conducting a quality IBR Review, including conducting process, data traces and CAM Interviews
- Reviewing the IBR Compliance Checklist
- Preparing the Final IBR Report and CAR's, Observations
- Managing IBR Challenges and applying Lessons Learned

Course Materials & Training Guides

- Copy of Scope Works comprehensive IBR Training Presentation pack and examples
- IBR Training Guides including Scope Works EVM Blue Card
- Training Recognition Certificate

Course Duration

- 2 days

Pre-requisite Courses:

Scope Works EVM Practioner Course

Target Audience:

- Defence Project Managers, Stream Leads, PMO, Project Controls, Schedulers, Cost Analysts, Finance Teams
- Defence Governance/Assurance & Audit Roles

Thank you

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