Australian Government
Department of Defence
Associate Secretary

An update on the significant developments in integrated project controls, EVM and project reporting within and external to CASG

Andrew Goodwin
Technical Specialist - Earned Value Management
Capability Acquisition and Sustainment Group (CASG)
PGCS August 2021

Defending Australia and its National Interests
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The Intent of EVM Application

"The key reasons CASG applies EVM to applicable contracts is that it:

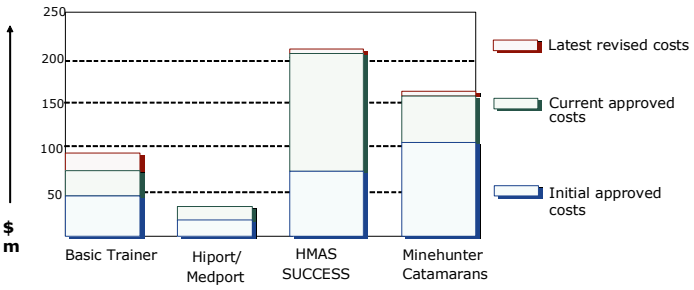
- promotes better project management practice in industry and
- ensures contract performance data is shared between contractor and Commonwealth staff so that emerging problems can be identified and acted upon as early as possible."

Quote from CASG Policy (PM) 003 EVM Application to CASG Contracts.

- In order to achieve these outcomes, the Commonwealth must undertake a series of reviews and then use the outputs of the EVMS in concert with other Project Controls information.

Origin of EVM in Aust DoD

- Report to the Australian Parliament - JPAC Report 243
  - Review of 16 projects originating between 1979-83
  - 11 of 16 projects exhibited cost, schedule or technical shortfalls
  - Four of the projects exhibited significant shortfalls:

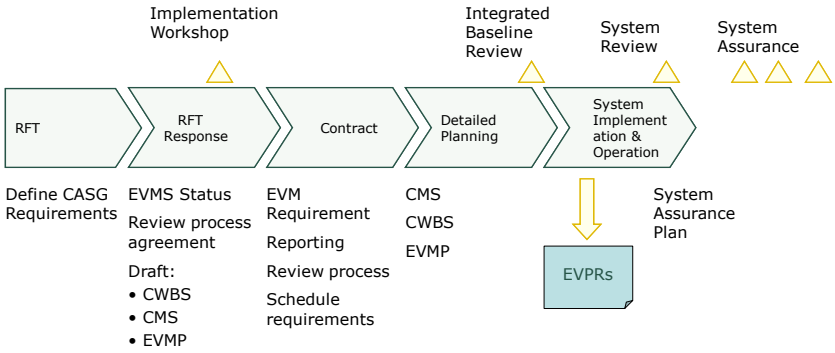


- Reaffirmed by First Principles Review of Defence in 2015

The Earned Value principle

- Earned Value is defined as the value of completed work expressed in terms of the budget assigned to the work
- At its most basic it is simply the generation of a single additional piece of data for analysis against time-phased budget and actual costs
- However, generation of valid date requires an underpinning system – Earned Value Management System

EVM Implementation Overview

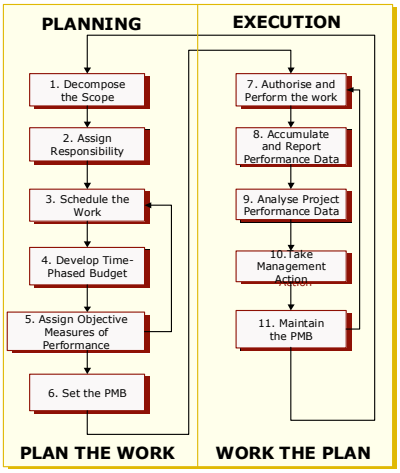


EVM Standards

- CASG applies the Australian EVM Standard
  - AS4817:2019
  - It is a modified adoption of ISO 21508:2018, which itself uses the AS4817 process model
  - Differs via SHALL vs SHOULD statements
- Defence Supplement brings Aust DoD broadly in line with US DoD EVM requirements, which many of our global suppliers are familiar with (EIA 748C)

CASG Reviews – Integrated Baseline Review

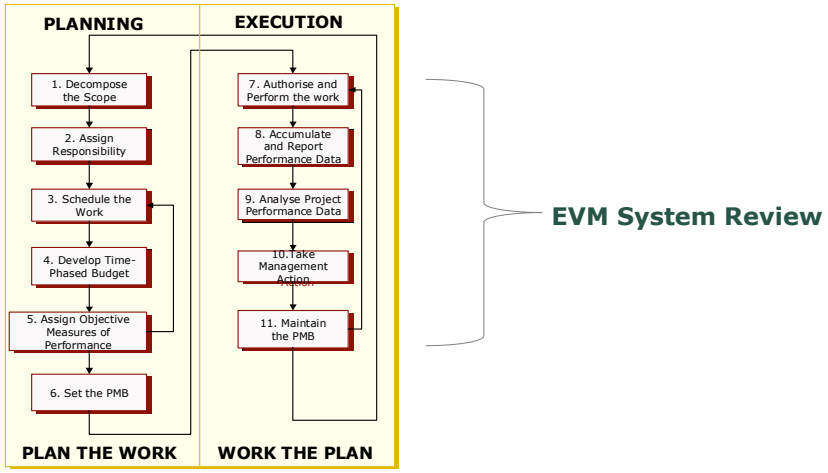
Integrated Baseline Review



Integrated Baseline Review

- IBR objective is to enable an assessment of and subsequent approval of the Performance Measurement Baseline.
- Integral part of an EVM implementation on a contract. Provides for the review of the contractor's execution plans.
- Focus on the assignment, definition, scheduling and resourcing of work, thus establishing early visibility into the acceptability of the contractor's planning for the contract.
- Also reviews the methods and metrics used to measure contract performance or progress.
- The focus is upon reviewing the technical merits and resourcing of the plan and to assess the risk associated with the baseline.
- Data focused review.

CASG Reviews - EVM System Review



EVM System Review

- EVMS Review assesses compliance with the requirements of AS4817, the Defence Supplement and ASDEFCON clauses.
- Assessment of the contractor's practical implementation of EVMS for compliance with the contractual requirements and that its EVMS is capable of generating accurate and reliable data.
- Review can be tailored based on:
  - contract characteristics,
  - contractor's prior EVM experience
  - past performance of the contractor in applying EVM to other Defence contracts or other contracts where the equivalent EVM requirements have been applied.
- EVMS Reviews focus on process and process adherence.

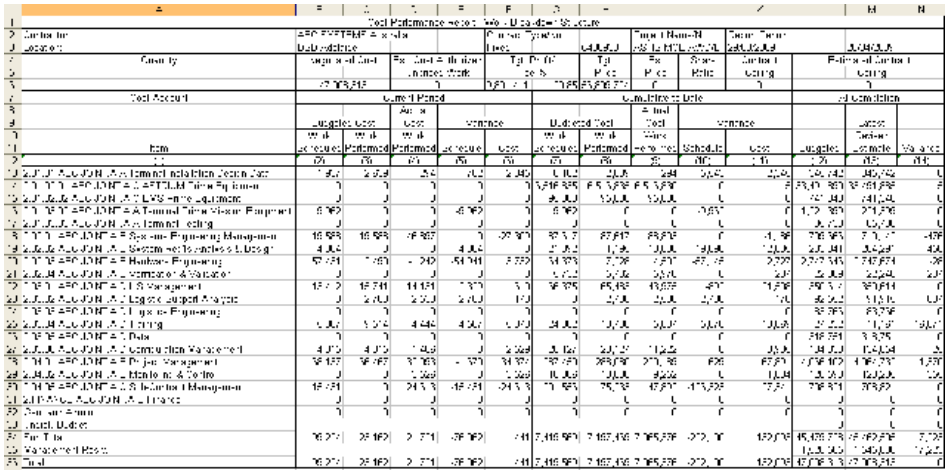
IBR and EVM System Review Handbook

- Previously, IBR and EVMS Review guidance was contained in separate documents:
  - DMH (PROJ) 11-0-002 IBR Handbook
  - DMH (PROJ) 11-0-005 EVMS Review Handbook
- CASG Handbook (PM) 010 IBR and EVMS Review Handbook released May 2021.
  - Removed duplication across both reviews
  - Reduced burden on CASG Project Office and Industry staff

Earned Value Performance Reports (EVPR)

- EVPRs are the formal communication mechanism for EV data
- CDRL Item MGT-320
- Content requirements are outlined in Data Item Description (DID-PM-MGT-EVPR)
- There are five formats to the EVPR:
  - Format 1 – WBS;
  - Format 2 – Functional;
  - Format 3 – Baseline;
  - Format 4 – Manpower; and
  - Format 5 – Problem Analysis.

EVPR Format 1

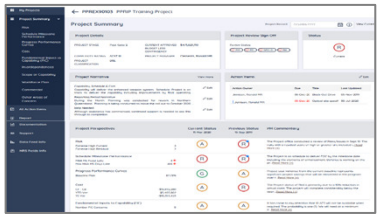


Project Performance Reviews

- A Project Performance Review is a formalised conversation between Project Teams and their PMs, SPO-Directors and Branch Heads.
- Aims to ensure a shared understanding of project status, early notice of issues, paths forward, actions, key decisions required/made and any assistance required from outside the project.
- Enables leaders to make sound business decisions and maximise the likelihood of project success.
- Process of reviewing performance against baselines. Conversations driven by risk and its mitigation.
- CASG EVM policy states that EVPR information is an input to the project risk management process.

Project Performance Review Information Platform

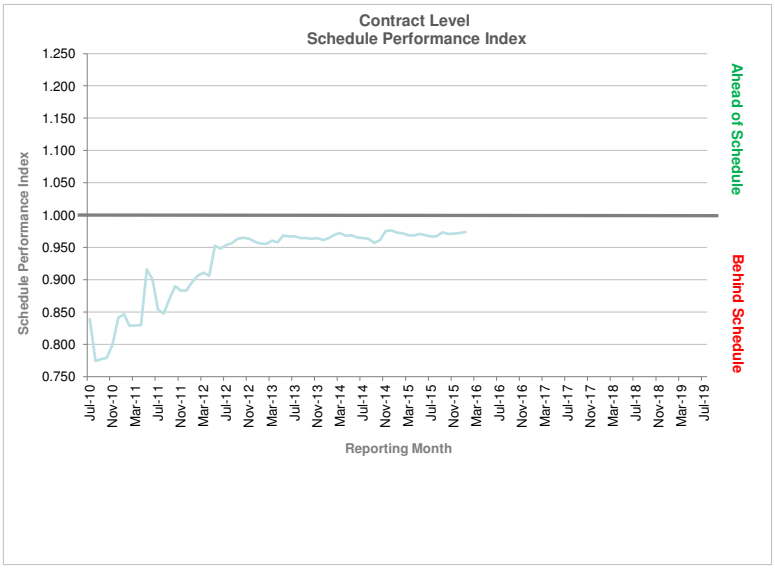
- Project Performance Review Information Platform (PPRIP) is a web-based platform, which drives Project Performance Review conversations around risks and issues, to support the decision making process and improve transparency of performance.
- Combination of automatic feeds of standardised data from existing corporate systems and manual entry.
- Supports the standardisation of project management and control data to improve project performance.



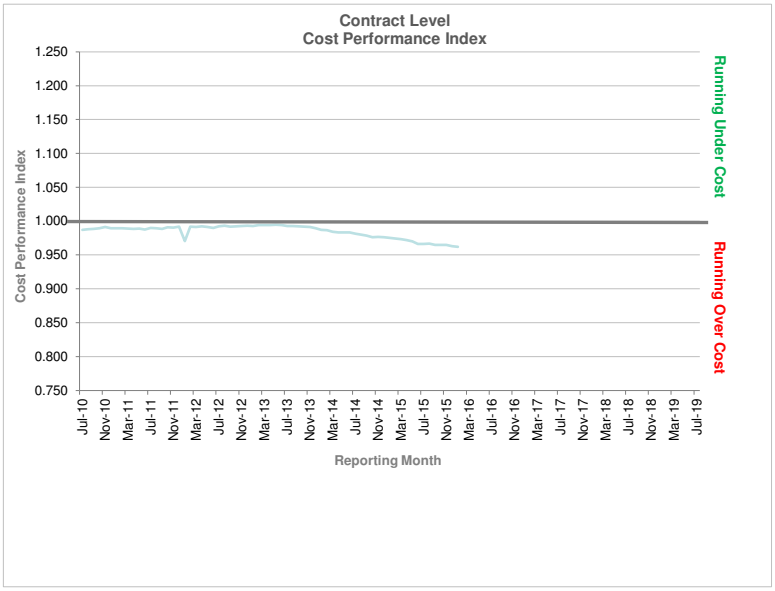
PPRIP Project Perspectives

- Project Summary
- Project Attributes
- Risk
- Schedule Milestone Performance
- Contractor EVM Data (formerly Performance Curves)
- Cost
- Fundamental Inputs to Capability
- Interdependencies
- Scope
- Workforce Plan
- Commercial
- Other Areas of Concern

PPRIP EVM Charts - SPI



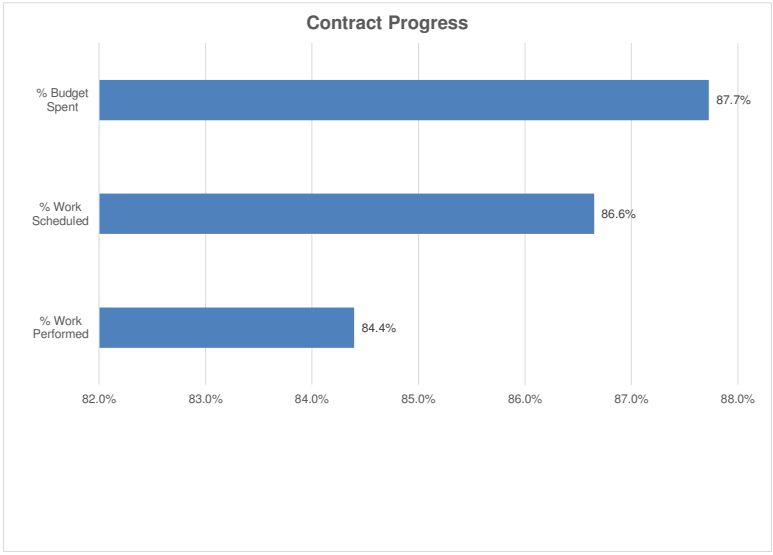
PPRIP EVM Charts - CPI

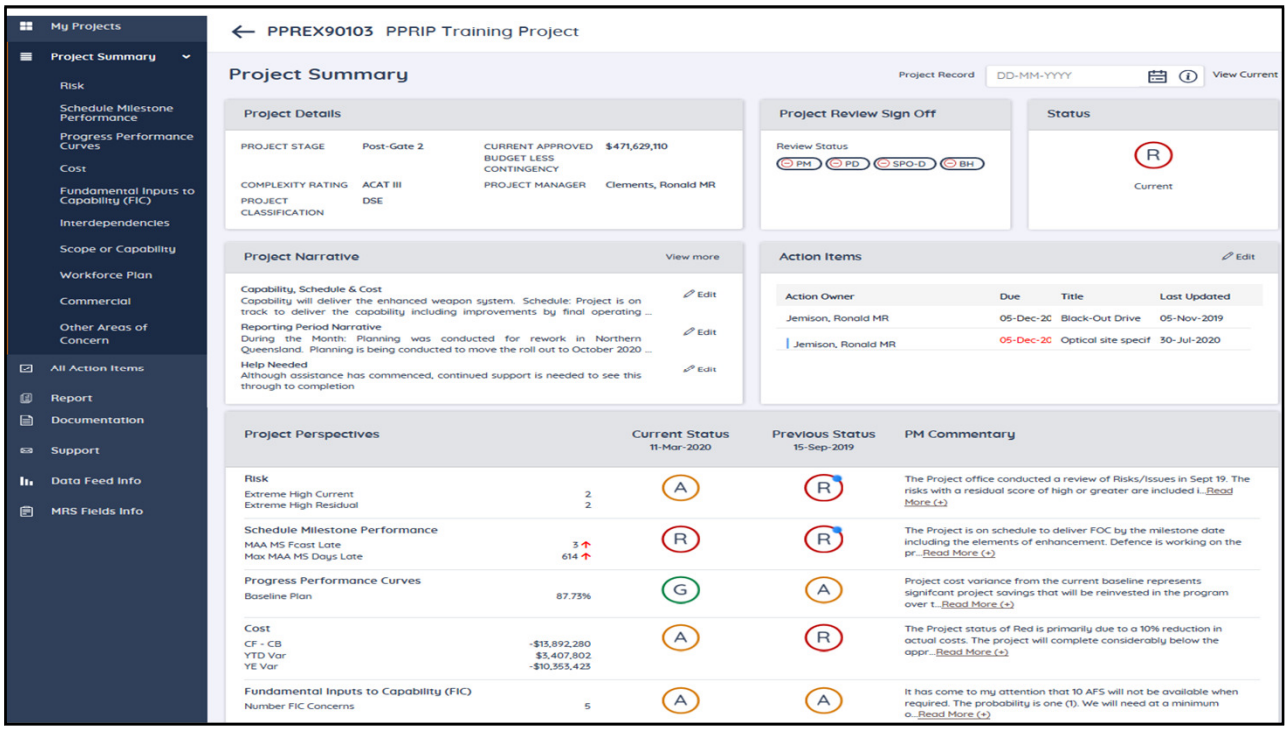


PPRS EVM Charts – Management Reserve

MR is budget that is held outside the Performance Measurement Baseline for unforeseen work that is within the scope of the contract. MR is generally consumed over the duration of the contract as risks eventuate and it is consequently allocated to budget new activities in the Performance Measurement Baseline through the contractor's change control processes. Rapid consumption of MR is a risk indicator - the project should review the Contractor's Management Reserve Log and Baseline Change Requests for details.

PPRIP EVM Charts – Contract Progress

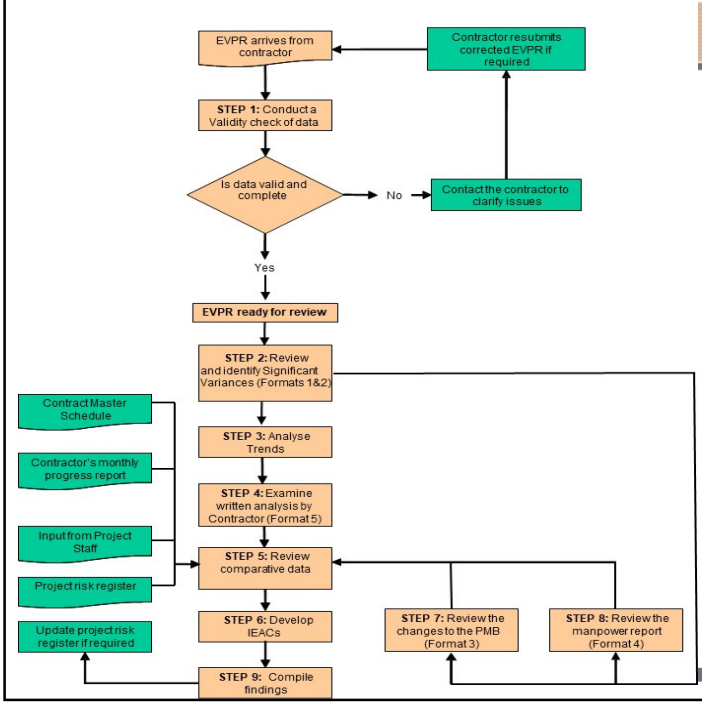




EVM Data Analysis Handbook

- CASG Handbook (PM) 007 EVM Data Analysis Handbook released May 2021.
  - Comprehensive update of EV Data Analysis Guide
  - Guidance on Management Oversight of Projects Using EVM
  - EVM use in Project Performance Reviews
  - Earned Schedule
  - Case Studies
  - EVM Snapshot Calculator

EVM Data Analysis Handbook



International EVM Standard

- ISO EVM Standard 21508:2018 provides a global standard for EVM
- ISO EVM Implementation Guide is intended to:
  - Promote global adoption of EVM
  - Promote global use of ISO EVM Standard
- ISO EVM Standard
  - Represents the global consensus on current EVM best practice **(what to do)**
  - Which will flow into the Implementation Guide **(how to do it)**

ISO EVM Implementation Guide

- **ISO EVM Implementation Guide**
  - Currently under development
  - Ongoing COVID-19 impact (completion Sep 2022 → May 2023)
  - CASG Represented in Core Team that is developing content
  - Contains sections on **IBRs, EVMS Reviews** and **Data Analysis**
  - Opportunities for advances to practice
    - ISO documents are developed by groups of experts from all over the world, that are part of technical committees.
    - Experts negotiate all aspects of the standard, including its scope, key definitions and content

The End

Questions?