

Beyond the Baseline – Unleashing Success with Earned Value Management

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Introduction – Knowledge Hub Session 1

Warning

1. I'm comfortably retired and have no interest in getting more work
2. My input to these sessions will confront a lot of vested interests
3. Debate is welcome

Basic thesis:

Nothing much has changed in the last 60 years – success/fail rates and the control tools are much the same as when I started work in the early 1970s – **a change is needed**



Introduction – Knowledge Hub Session 1

Myths and fantasies

1. More detail improves decisions
2. You can control/engineer costs once the project has started
3. In project controls, detail = precision = useful

General George S. Patton Jr.:

"A good plan, violently executed now, is better than a perfect plan next week."



The purpose of knowledge is action, not knowledge.



MERLIN

Introduction – Knowledge Hub Session 1

Session 1 Topics

Project Control Phases

The three components needed for effective project control

Defining the components:

- A tool to identify the current situation
- A flexible tool to help plan and optimize future work
- A precise tools to monitor and record actual performance

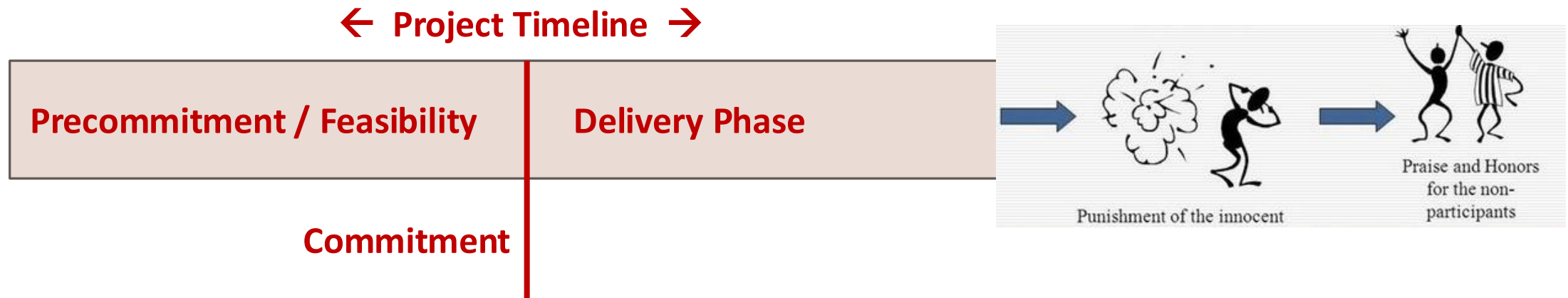
The current 'state-of-play' including planned and actual updates to the core EVM standards

Accepting risk and uncertainty – no one can accurately predict the future.

Why managing to deliver on-time is more important than on-budget, time is money!

Session 2 will be at 11:45 tomorrow

Project Control Phases



Before commitment:

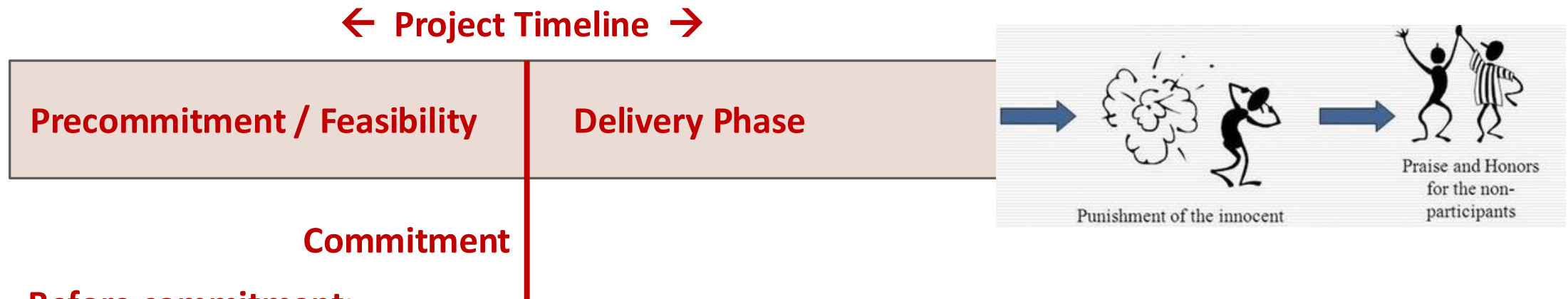
Detail, precision, and in-depth analysis and reviews are desirable to define the commitment

During delivery:

Management need adequate information to support decisions and actions (time-urgent).

Governors and accountants need precise information on money and quality (accuracy matters)

Project Control Phases



Before commitment:

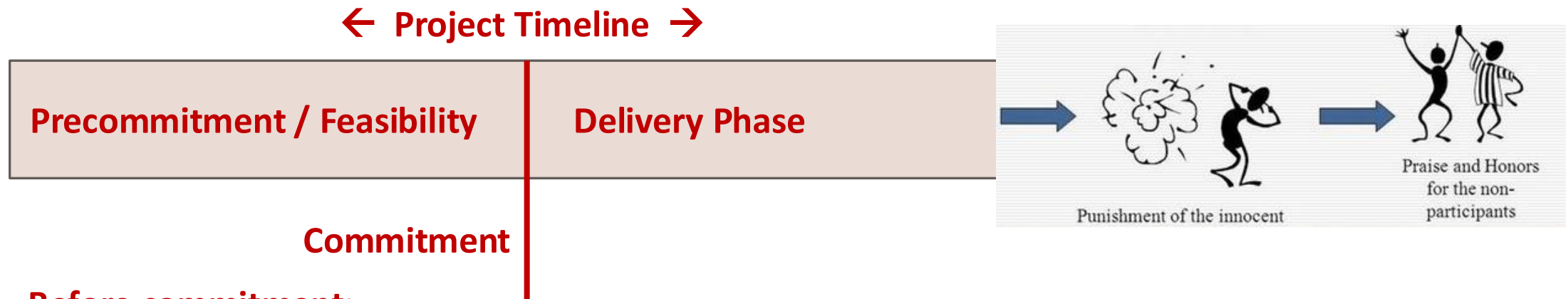
Cost is a key input – estimated costs constrain scope and feasibility

The 'Cost Estimate' defines the delivery contract and/or project approval – accuracy is important

During delivery:

Cost is an output – derived from the cost of procuring the resources and how well they are used

Project Control Phases



Before commitment:

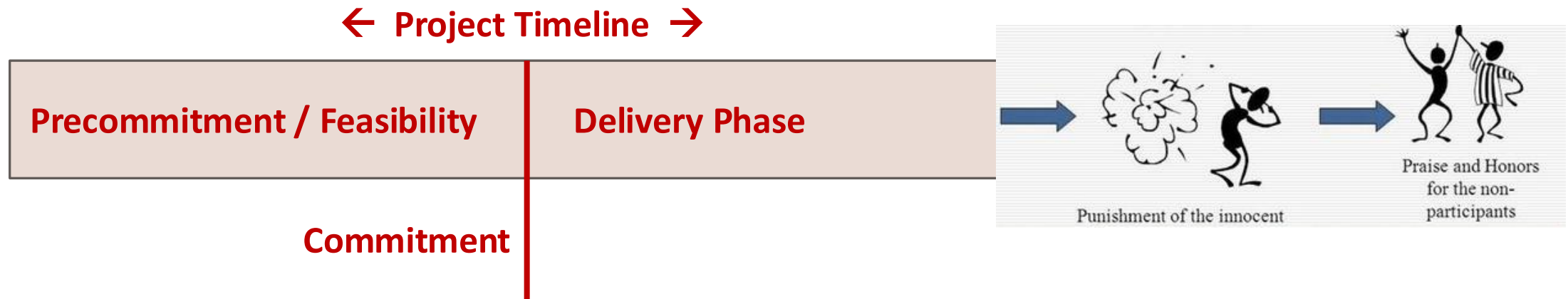
Developing a resource loaded, realistic, CPM Master Schedule underpins project delivery

Setting up an effective EVM system will assist in overall control

During delivery:

CPM and EVM-PV show where you planned to be – they don't help manage day-to-day performance

Project Control Phases



This presentation is focused on the project delivery phase – post-commitment

The assumptions underpinning the session are:

1. The project scope, cost and duration are defined (either as a contract or a formal approval)
2. There is a plan to achieve the scope within cost and time constraints
3. The work is being managed as a ‘traditional project’

Three components for effective control

In this environment, an effective project controls system needs:

- 1: A robust tool to identify the current situation, trends, and highlight problems and opportunities in a timely way (1 or 2 days)
- 2: A flexible tool (or tools) to help plan and optimize future work to make the best use of the available resources, lock in opportunities, and mitigate issues
- 3: A set of precise tools to monitor and record actual details of project performance and expenditure to support good governance, reporting and audit requirements

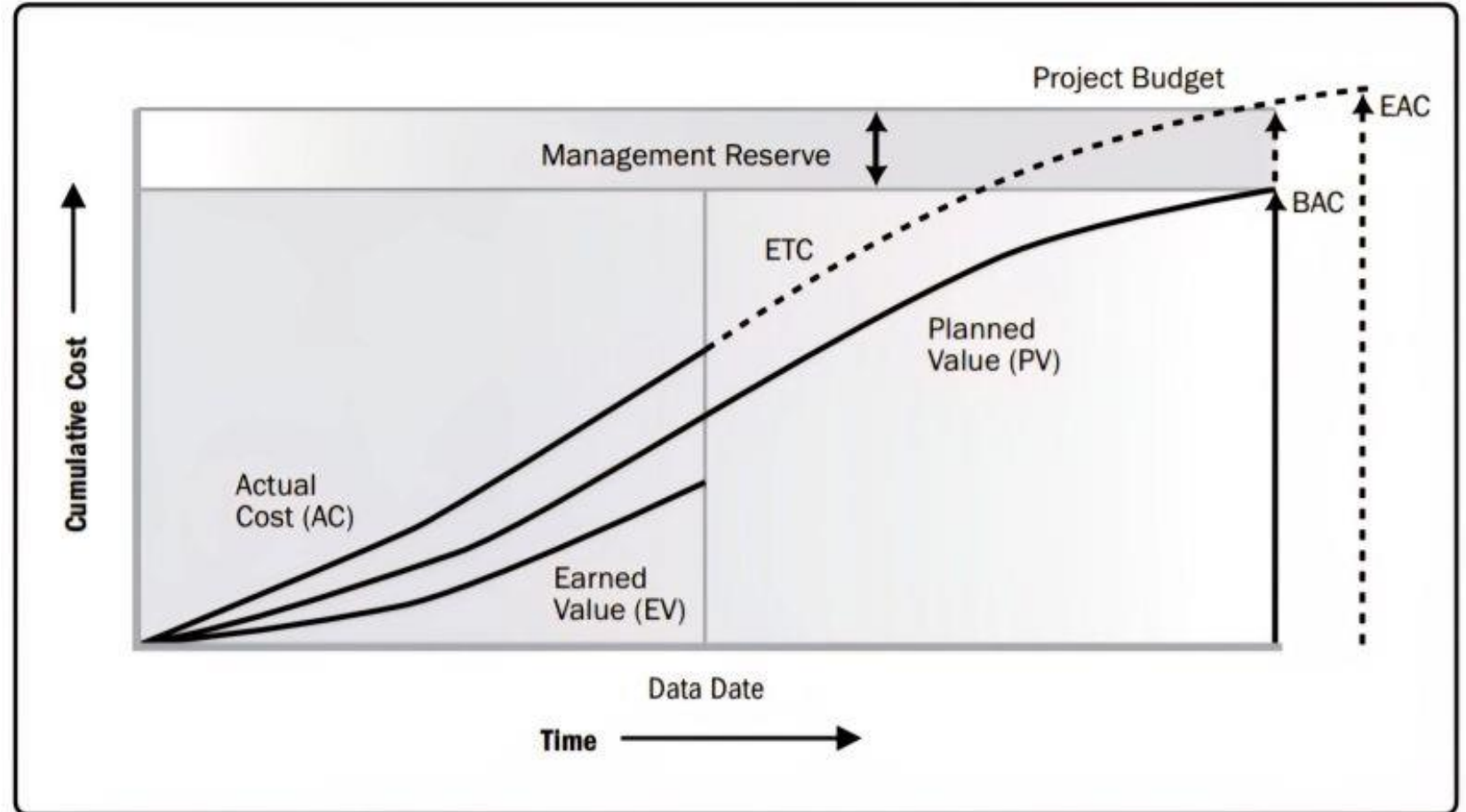
These three functions are mutually exclusive and cannot be run concurrently through the same project management tool without seriously compromising one or more of the three requirements.

Other tools and processes are also typically needed (risk, HR, safety, etc.) but are beyond the scope of this presentation

1. Identify the Current Situation

This chart is totally useless!

1. If management don't already know they have a problem they are the problem
2. There is absolutely no actionable information
3. Adding global ratios such as CPI, CV, TCPI, etc. don't help



1. Identify the Current Situation

Actionable information is needed within 2 or 3 days (preferably less)

Required information for each **Work Element**, for each period:

1. How much work has been achieved vs required performance
2. What are the trends
3. Where are the opportunities
4. What exactly is the cause of each problem / issue

Work Element = a trade or skill in an area (work package or part of a work package)

Time is critical – Every day management does not make a decision to act, is a lost day that will never be recovered

1. Identify the Current Situation

This information is needed within 2 or 3 days (preferably less)

The **quality** of the information is vital:

1. **Quality** = fit for use (ie, adequate for use in decision making)
2. Highly detailed information (weeks later) is the antithesis of useful – KISS
3. The key metric is the **SV** for each Work Element plus short- and long-term trends and changes

Using the information is vital:

1. **A decision to act is always a good decision** - it can be fine tuned later
2. Asking for more detail and more analysis = procrastination (ie, a management failure)
3. **SV** highlights where the problem is, management need to understand the root cause, **and then act to remove the cause!**

2. Plan and Optimize Future Work

The only way to solve an identified productivity problem is to change what happens in the future – the past is history

Short-Term: The only people immediately available to help are the project team assigned to the Work Element

Flexible tools help plan and optimize future work to make the best use of the available resources, lock in opportunities and mitigate issues

There are lots of options – different processes work best in different situations:

- Scrum / Agile / Velocity
- LEAN / Last Planner / Takt
- Short term look-ahead (bar charts)
- *Etc.* The key is to keep the planning real based on what can be achieved short-term

Note: The baseline CPM / Master schedule is of no practical use in this process

2. Plan and Optimize Future Work

Lean Six Sigma: 8 Wastes

Medium-Term:

Improve processes and eliminate waste:



Defects

Efforts caused by rework, scrap and incorrect information.



Overproduction

Production that is more than needed or before it is needed.



Waiting

Wasted time waiting for the next step in a process.



Non-Utilized Talent

Underutilizing people's talents, skills & knowledge.



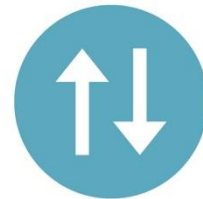
Transportation

Unnecessary movements of products & materials.



Inventory

Excess products and materials not being processed.



Motion

Unnecessary movements by people (ex. walking).



Extra-Processing

More work or higher quality than is required by the customer.

2. Plan and Optimize Future Work

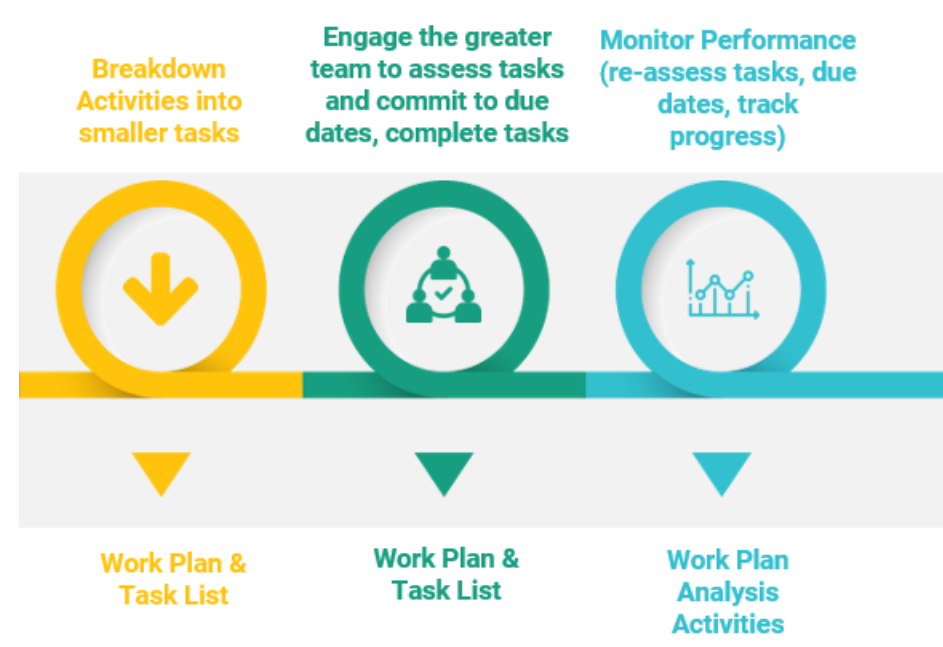
Long-Term

1. Fix procurement to obtain enough of the right resources at the right time

- If a trade-off is needed look at paying more for the required resources – this is almost always the lowest cost outcome

2. Optimise/redesign workflows

- Work with the team
- Be flexible
- Focus on outcomes
- Think long-term and short-term



3. Record Actual Performance

Finally, you need a set of precise tools to monitor and record actual details of project performance and expenditure to support good governance and audit requirements

- Financial accounting software
- Contract admin systems
- Full EVM with both PV and AC included

Adapt the EVM *Problem Analysis Report* (Format 5) to explain actions taken and planned to lock in gains and mitigate losses

The Current 'State-of-Play'

EIA-748E Earned Value Management System Standard.

- Updated 17th Feb 2026
- Reports suggest this is only a cosmetic revision with no substantial changes
- Major fight going on in the USA to dump EVM as too ridged to be useful

ISO 21508:2026 Earned Value Management

- Updated February 2026
- Main edits to retain alignment with other standards (Kym Henderson led this update)

ISO 21511:2018 Work breakdown structures

- Update due 2026, includes WBS approaches for Agile projects

ISO 21512:2024 Earned value management implementation guidance

- Corrected version published April 2025

The Current 'State-of-Play'

In the USA defense industry, and many other projects world-wide the state of play is:

- Contractor and client 'controls' experts fight over semantics in reports (EVM, CPM, etc.)
- The control tools focus on detail rather than usefulness
- Reporting cycles are 3 to 4 weeks after the end of a reporting period
- Everyone focuses on cost, float, and apportioning blame / claims.....
- There is a disconnect between the controls experts and the people managing the work
- There is growing pressure to dump EVM

There are promising signs in some Australian projects that this paradigm is being replaced with more useful management structures and controls systems

Accepting Risk and Uncertainty

Trying to avoid risk encourages failure

- The future is always uncertain
- Every prediction about the future will be wrong – good predictions are close enough to be useful
- **No one knows if a decision is correct until after it is implemented**
- Risk management tools and techniques help reduce uncertainty, but no tool or process can eliminate uncertainty
- There can never be enough data to eliminate uncertainty no matter how long you wait

When management at all levels understand that momentum matters and start accepting uncertainty, outcomes improve

The key shift is realizing time flows immutably, use it or lose it

Time is Money!

Cost is an output! It is a consequence of:

1. How much the market charged the project for its resources (mitigated by procurement)
 - People and equipment
 - Materials
 - Services and other intangibles
2. How effectively and efficiently the management team used the resources to accomplish the scope:
 - **You cannot manage costs** so stop worrying about them
 - You can manage the use of the project's resources

Efficient and effective management of the project resources will:

- Deliver the project in the shortest practical timeframe
- Result in the lowest achievable cost outcome – **focus on what's controllable**

Time is Money!

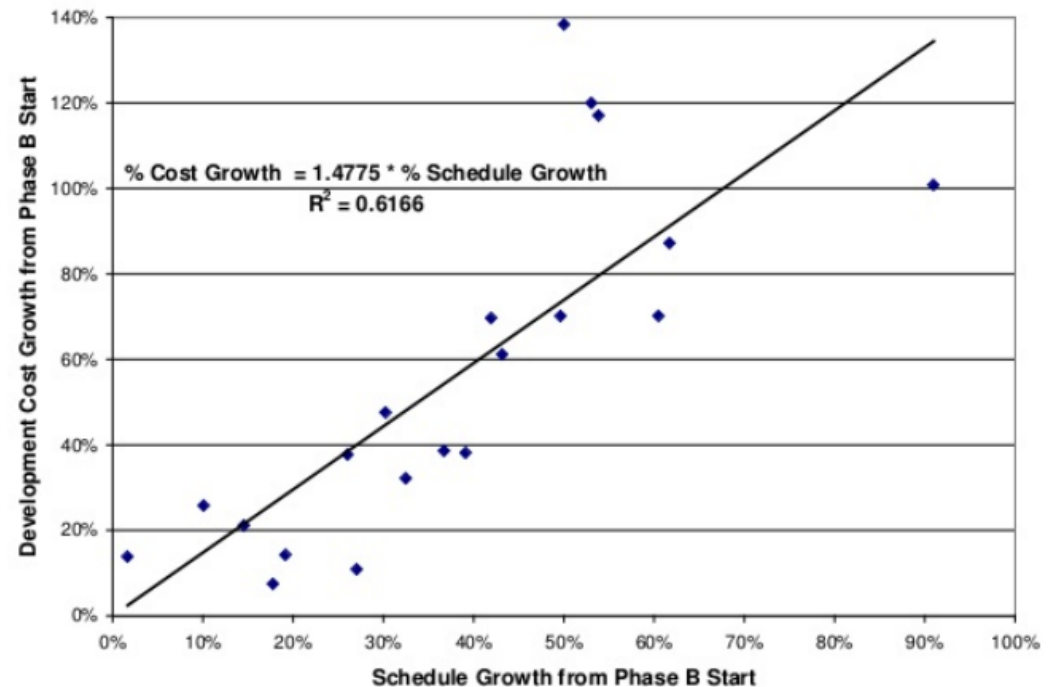
Projects that finish late are always over budget

Projects that finish early may be on-, or under-budget

It is not rocket science:

- You can manage resources to optimize time outcomes
- You cannot 'manage costs'

Correlation Between Cost and Schedule Growth Indicates that Schedule Growth Has Strong Influence on Cost Growth



Conclusion

2-Step EVM:

Step 1 – within 2 or 3 days produce the **SV** data by Work Element
(can be progressive allowing management to fix one problem at a time)

Step 2 – within 2 to 3 weeks full value EVM reporting with cost information added

An over-emphasis on cost control is detrimental to effective project management and usually counterproductive – project controls and EVM need reframing to drive success

Put the **EV** into achievement
(adapted from EVA33)

Conclusion

Management need encouraging to use the SV data proactively to improve workforce productivity starting 'today'

- **No decision = no action = no possibility of improvement in productivity**
- **Every decision can be adapted as information improves**
- **Decisions enable action which facilitates productivity improvements**

Session 2 (11:45 tomorrow) will look at:

- **Outlining a controls system that works**
- **Shifting EVM towards providing robust information early**
- **Forward planning options from CPM through lean to agile**
- **Using AI to enhance management information**
- **Dealing with the essential governance requirements – we still need the project accountants**

Questions?

Questions can be asked now, or

Contact the presenter at:

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