

Performance Based Earned Value Management



What's next for Earned Value?

Earned Value Management has been around for over 50 years; employed by organisations that deal with major projects to help track and monitor project status. Earned value helps a business manage the complexity of monitoring the right metrics to measure project success when reporting on project progress.

For those working on construction or infrastructure projects, having software use sets of metrics that relate to cost, timings, quality and progress are important. However the number of bricks laid, the length of track installed or the procurement of items does not adequately reflect the real project status, which means a lack of true transparency on progress.

The value of Earned Value

Earned Value Management provides a valuable tool for reporting on project progress however even this trusted methodology provides challenges for those teams who are having to manage large portfolios of complex projects. The reliance on costings to reflect progress is difficult, particularly if there are budget over-runs or

unexpected costs. Similarly using completion milestones for timings and schedules without quantifiable deliverables can make it difficult to effectively track progress.

Relying solely on earned value management though as the progress metric for major construction and infrastructure projects can be ineffective though. The number of rectification of defects and unexpected additional works can mean a confused understanding of progress when it comes to reporting.



Performance Based Earned Value – the next step

Just as technology evolves, so does financial management. Earned Value methodology has developed and the next evolution is 'Performance Based Earned Value' or PBEV.

Performance Based Earned Value builds upon the strengths that Earned Value has created to enhance the reporting on complex projects. It combines the traditional earned value metrics with technical performance and quality measures that allows the reporting to also capture the quality gap.

The standards and models for Performance Based Earned Value are based upon the ethos common to engineering, software development and project management, having an emphasis on quality.

The main difference between PBEV and EV is the focus on customer requirements. Which means that Performance Based Earned Value approach uses

principles and guidance for cost effective processes that clearly outline the most effective measures for cost, schedule, and product quality performance.

This stipulation of measures means there is far more clarity over the expected outcome. The programme managers have an accurate reporting of integrated cost, schedule, and technical performance and the PBEV reporting is far more effective, although this is reliant upon the contractor or supplier having a robust earned value management system. In order for the data to be reliable it needs to ensure:

- o The project's indicated quality is measured
- o The right base measures of technical performance are set and selected
- o Progress is assessed objectively



“Programme managers have an accurate reporting of integrated cost, schedule, and technical performance”

Performance Based Earned Value – the next step

The current quality gap in earned value means there is a lack of assurance around project metrics and quality, as the focus is more on quantity. This is because of the measurement of quantity of work completed rather than quality. In addition earned value management looks at the project's scope of work and not the overall project requirements or user needs.

The evolution from earned value management to performance based earned value sees additional principles and guidelines being introduced that specify the most effective measures of cost, schedule, and product quality performance.

Adopting Performance Based Earned Value, an organisation supplements the benefits of earned value management with best practice and leading-edge methodology. It enables businesses to truly integrate project cost, schedule, and technical performance into their construction and infrastructure projects.

The focus on user requirements means project scope and quality metrics are built into the project plan, providing clarity and transparency around expectations and final outcomes. The project progress is plotted against fulfilment of user requirements, allowing corrective actions to be amended that deviate away from the original user requirements and project objectives. The rapid implementation of these corrective actions creates its own efficiencies in terms of preventing excess time and resources being used on project work that is not supporting the specified user requirements.



How to adopt Performance Based Earned Value

For an organisation who is looking to adopt Performance Based Earned Value, it is important to have buy-in from the business. This means that the user requirements have been defined; the costs and schedule baseline have been clearly identified and the appropriate metrics, including quality and technical levels, have been specified.

Once this is in place the organisation needs to create and rollout a PBEV process that effectively measures the final costs and schedules based on actual performance. This process needs to clearly state the expected progress of the project, so that corrections can be made if the project's progress differs from expectations.

The reporting of the project progress may well form a dashboard that highlights a status and achievement indicator for:

- Variations to schedule

- Variations to timings

- Variations to costs

- Differences in scope

- Defects discovery and corrections

This dashboard provides part of the reporting pack that allows stakeholders and Executives to have quick and easy access to project performance status.

Earned Value has demonstrated its value for both public sector and private organisations in allowing projects to be more effectively managed.

The development of Performance Based Earned Value takes this one step further. By integrating quality and technical metrics within the overall methodology, organisations can both accurately measure project progress as well as deliver projects that meet the user requirements that support the business.

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