

EVM Staff Augmentation Supporting a BARDA Contract: A Case Study

TriVariant consultants provide EVM staff augmentation to a government contractor for their BARDA contract under the U.S. Department of Health and Human Services.

The Customer

- A biotechnology company providing vaccine research and development to the Biomedical Advanced Research and Development Authority (BARDA) within the U.S. Department of Health and Human Services (HHS)
- Small company with limited resources to manage additional work that developing and maintaining an Earned Value Management System (EVMS) requires
- Few project team members had any exposure to EVMS principles

The Challenge

Our customer did not have the in-house resources needed to meet the demanding contract timelines for the initial EVM baseline submission or the monthly reporting. The number of team members available to support EVM were limited and, in most cases, the project team members had no EVM experience.

- Our customer needed assistance in developing and maintaining an EVMS for performance measurement
 - Up until now, there had been no requirement for EVM principles, as the nature of their work was largely commercial
 - There was no EVM process documentation
 - The program management tools were minimal (scheduling and accounting)
 - The program management tools that were in place were not integrated
 - Project team members, for the most part, had no EVM experience
- The EVMS needed to be compliant with the [Seven Principles of Earned Value](#) under their HHS contract requirements
 - Did not require a full EVMS implementation (that is, no System Description or detailed work instructions/SOPs for EVM were required)
 - There was no requirement for a validated EVMS under HHS requirements
 - The Seven Principles of Earned Value Management, which govern Earned Value for HHS contracts, require the same level of processing and documentation as the [SAE EIA 748-C Earned Value Management Systems Standard](#) – there is no reduction in the collection of project cost and schedule data
- The base contract was large with some complexities
 - Contract value was in excess of \$100 million

- There were several contract milestones to manage and meet for Go / No Go decisions
- There were multiple funding CLINs that had to be managed separately, but with a consolidated reporting structure
- Several months had passed since the proposal budget was submitted, so many of the assumptions had changed
- The base contract period of performance was extended multiple times to almost 6 years
- The initial Performance Measurement Baseline (PMB) had to be submitted to BARDA within 90 days of contract award – a very quick turnaround for any contract, especially one this large
- The contract baseline was replanned 4 times over the contract period of performance (in addition to the original baseline submitted for the initial review)
 - Each replan required a new PMBR package submission for the updated baseline
 - Each replan required a similar level of effort by the project team to create the new baseline as it did to create the initial baseline
- Program Controls resources were limited
 - During the first 4 years of the contract period of performance, there was only 1 full time team member dedicated to supporting the EVM requirements and assisting the Project Manager
 - *During the final 2 years of the contract there were no in-house team members available to support the EVM requirements, other than a very busy Project Manager*
 - The tool chosen to support the EVM data management and reporting requirement was unfamiliar to the Program Controls team, so project setup, maintenance, and monthly reporting proved to be difficult – training was needed while still meeting CDRL delivery requirements
 - There were no monthly processes in place, such as a business rhythm calendar to ensure reporting deadlines were met
 - The customer was located offsite and had a limited budget for EVM, making regular consultant travel cost prohibitive

The Solution

To meet the tight schedule for the initial baseline submission package, ensure timely submission of the subsequent monthly reporting, and field any EVM-related inquiries from BARDA, TriVariant assumed the majority of the roles of the Program Controls team from program onset through the contract period of performance, which lasted almost 6 years.

- Our customer needed a “sixth man” to meet contract EVM reporting requirements
 - Program Controls staff was limited in numbers
 - Program Controls staff was not experienced with the tools chosen to manage the EVMS
 - TriVariant provided on-site and remote support to ensure contract compliance
- TriVariant developed the initial project baseline to meet the PMBR requirement for a 90-day turn-around on the baseline
 - Worked with the project team (Project Manager, CAMs, Accounting, and Project Controls) to gather the information needed to develop the initial baseline

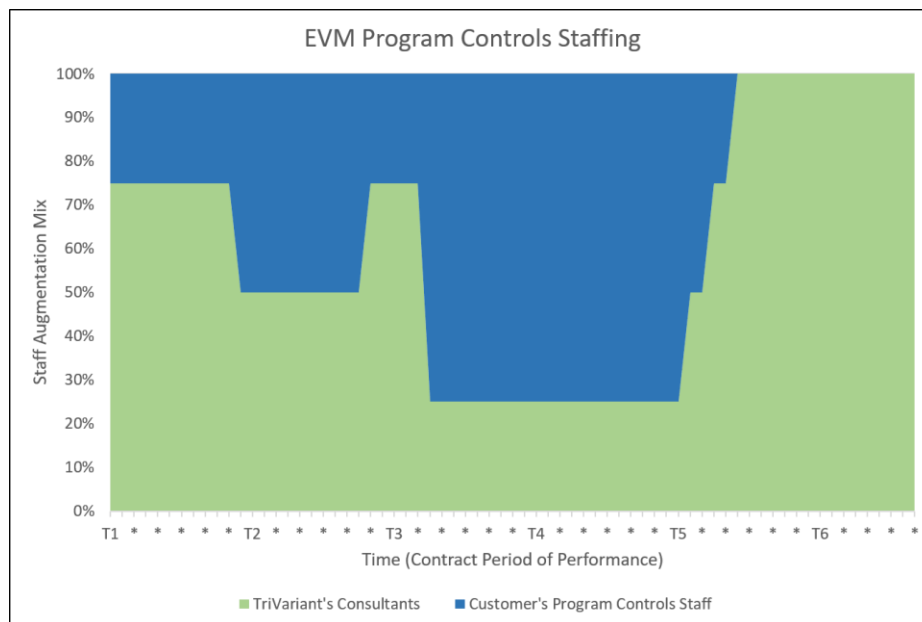
- Worked with the Project Manager to flesh out the WBS based on the proposal, plus any new assumptions
- Worked with the Project Manager to develop the Integrated Master Schedule, using appropriate scheduling practices that would satisfy the contract requirements (the Project Manager maintained the IMS over the life of the project – no separate Scheduler was available in-house, and the preference of the Project Manager was to minimize access to that file)
- Worked with the Project Manager and CAMs to time-phase the contract budgets
- Produced and packaged the required documentation for BARDA’s review of the initial baseline
- TriVariant initialized the project data into the EVM tools once the baseline was approved
 - Designed the data setup in the EVM tool to support the BARDA monthly reporting requirements
 - Additional monthly in-house documentation that relied on the project data from the EVM tool was developed in outside tools
- TriVariant developed the EVM processing procedures and monthly business cycle to ensure monthly CDRL submission deadlines were met and that all required submission reports and in-house management reports were accounted for each month
- TriVariant developed project specific training materials for the EVM tools and monthly processing – this training was delivered to Program Controls
 - TriVariant delivered on-site training to the Program Controls team on managing data in the EVM tool and working through the monthly processing steps
 - TriVariant developed processes to verifying data before and after import into the system
 - TriVariant worked side-by-side with the Program Controls team each month to make sure they understood the requirements and how to deliver on them
- TriVariant performed the duties of Program Controls to meet the monthly CDRL submission deadlines
 - In the beginning of the contract, and until the Program Controls team could be trained, TriVariant collected monthly EVM data and produced monthly CDRL reports to ensure reporting compliance with the contract
 - After the Program Controls team was trained, TriVariant worked in a “help desk” capacity to answer any questions concerning the monthly reporting requirements, and to review all work before it was submitted
 - Within a couple of months after turnover to the in-house Program Controls team, TriVariant resumed all roles as Program Controls, with the exception of initial project data collection and interaction with the Project Manager – in-house Program Controls continued to provide actual cost data
 - In the final years of the contract, there was no in-house Program Controls team (due to staff turnover), and TriVariant assumed all Program Controls responsibilities, working directly with the Project Manager to meet reporting requirements
 - The TriVariant team maintained an active relationship, with most or all the EVM responsibilities, over the full contract period of performance, which lasted almost 6 years

The Outcome

Adding TriVariant to the Program Controls team, ensured an experienced addition to meet BARDA EVM requirements. Since TriVariant was part of the team from the onset, they were familiar with program details, so when staff turnover ultimately eliminated the in-house Program Controls team, the TriVariant team could continue to fill the roles needed to meet contract compliance, with no lapse. TriVariant:

- Seamlessly integrated into the customer's Program Controls team from the onset of the contract throughout the period of performance of almost 6 years
- Helped develop the initial baseline, as well as 4 replans over the life of the contract
- Ensured that PMBR packages were complete and submitted to BARDA within the 90-day requirement
- Worked with the Project Manager to respond to EVM inquiries from the BARDA team
- Produced all monthly reports (submission reports, as well as internal management reports), managed the EVM tools, and maintained the project artifact repository
- Assumed all Program Controls responsibilities for the final years in the contract

By augmenting the existing team with TriVariant consultants, the customer recognized cost savings without losing experience. For example, during a baseline implementation, you may need multiple skill sets for scheduling, budgeting, managing reporting tools, and developing submission documentation. Using experienced consultants during these peak demand efforts means that you are not incurring costs (salary and benefits) for full time staff that will not be fully engaged during subsequent routine monthly cycles – you have the benefit of the depth of a larger, experienced team without the ongoing costs. Whether consultant involvement is high or low or fluctuates greatly over time, you always have 100% of the EVM needs met.





There are unique skill sets needed to manage a project with EVM requirements. If you have a small staff in Program Controls and lose one or more team members, then you assume the risk that you will not be able to meet contractual obligations with regards to EVM reporting. By having TriVariant on the team, risks associated with having a small team were mitigated. With an experienced consulting team from TriVariant supporting the EVM side of the project, the Project Manager could focus on using the EVM data to manage the program rather than having to worry about collecting and processing the EVM data.

About TriVariant

TriVariant is a competitively priced, high-value, hands-on implementer of program management and Earned Value Management solutions. We work side-by-side with our customers to ensure their success and are experts in state-of-the-art project management and cost-engine software; have experience integrating tools, documenting processes, and training staff; and successfully guide our customers through Earned Value Management System (EVMS) implementations and reviews.

For more information about our EVMS implementation services, please email us at info@trivariant.com or complete our short online [Request for Information form](#).

Useful Terms

The **SAE EIA 748-C EVMS guidelines** are an established set of project management best practices for managing technical scope, schedule, and budget in an Earned Value Management System. Many U. S. Government contracts require adherence to these guidelines for management and reporting purposes.

An **Earned Value Management System (EVMS)** is a project management tool for objectively measuring project progress in terms of schedule and budget performance. Its value is in periodic monitoring project performance and using the data to optimize project results.

A **Performance Measurement Baseline Review (PMBR)** is a meeting between the customer and BARDA to discuss whether the suggested plan to meet the contract obligations is feasible. While the focus of the meeting is generally on the technical approach to the contract work, a review of the work schedule (*can the work really be accomplished in the timeline presented?*) and the budget (*are the resources planned over time realistic to accomplishing the work?*) are also reviewed.

The **Seven Principles of Earned Value** are EVM guidelines established by BARDA that map to the SAE EIA 748-C EVMS guidelines. The intention is to provide a less burdensome EVMS that maintains compliance with the SAE EIA standards and provides the performance data needed for management decisions. While the 32 guidelines have been summarized into 7 principles, the full underlying EVM requirements are still needed for compliance.