

Benefits of Earned Value Maturity process introduced to Client Project Controls

Case Study:

► OVERVIEW

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1. **Customer:** Confidential/Withheld

 3. **Business Challenge:** Improving Project Managing capability

 4. **Service Featured:** Optimization of Earned value reporting process

 5. **Business Process Involved:** Streamlined reporting process

 6. **Benefits Realised:** Precise reporting

 7. **Areas of Impact:** Project Controls

CHALLENGE

► Leveraging Historical Project Data

Our Client has access to an excellent set of historical project performance data. This data is currently an underutilized asset. By analysing this data and providing feedback to estimating and project planning large benefits can be realized. This information may be used for benchmarking and to realize significant time savings in conceptual estimating.

► Improving Earned Value Management Maturity

In order to more effectively plan, performance manage and report on our projects, the client must improve the EVM maturity and improve project data structures and reporting processes (at strategic, tactical and operational levels) so that reporting production is more timely, the quality of information within the reports is of a higher standard and the client's indirect costs associated with program and project control are reduced. With its large program of projects Client has access to excellent project performance data that can be systematically analysed to provide vital feedback for improving estimating and planning for future projects. Client currently expends excessive recurring indirect costs engaging employees and consultants to manually collate and synthesize data that should be automated. If project structures and processes could be refined, then feedback for estimating can be improved and the internal transaction costs associated with program and project controls could be drastically reduced. By doing so, management will have more timely access to project performance information for decision making, improved confidence in the reports they are receiving and improved cost performance.

SOLUTION

► Value Addition 1- Data Transformation

Creating a database of Client project costs and schedule data could bring many strategic benefits as outcomes including the following;

- **Benchmarking** – Client's historical data could be transformed into a database that could provide benchmarking data and metrics that would be invaluable for reviewing and validating estimates.
- **Database Calibration** - the historical data that Client collects could also be used to validate estimating unit costs. This becomes more critical during times when contractor labour and material pricing is volatile.
- **Conceptual Cost Estimating and Scheduling** – a database system can also be used as an estimating tool to create conceptual estimates and schedules that are based on the historical project information. Using equipment related data and associated metrics generated by the system, the conceptual level estimates could be prepared with a minimal amount of time or engineering input.

There would be significant strategic benefits from transforming the current processes and data structures to create an historical project database whereby project controls performance data is fed back into the estimating process.

▶ **The key high level areas that will need to be addressed are:**

- ▶ **Processes** – Improving the Estimating processes currently employed by Client.
- ▶ **People** – Training and competency development of the project team members.
- ▶ **Tools** – Upgrading, changing the tools currently used for improved data storage, integration and automation.
- ▶ **Organisation of Data** – updating project data structures and architecture to enable improved benchmarking for estimating future projects, communication, integration with project controls and simplified reporting.

▶ **Value Addition 2 -Earned Value Management Maturity**

Improving the quality of earned value management processes will enable the client to have greater visibility of project performance issues, improved forecasting of costs and resources and improved management of contractors. This methodology improvement will standardize reporting and will reduce overhead costs associated with the large workforce currently required to manage the cost and schedule reporting processes. In order to establish EVM effectively significant development will be required on existing processes, people, tools and data structures. These changes will bring about standardization, automation and other benefits including a reduction in recurring overhead cost as the workforce currently engaged in compiling data for performance reporting can be significantly reduced. As a database architecture and project coding structures are improved it will also enable improvement in other areas as well, such as improving the integration of planning information for outages. Employees will experience a reduction in the mundane, repetitive, administrative tasks that are currently performed. The company will also benefit from more timely and accurate performance reporting as a result of improved confidence in earned value metrics and more timely report production.

The strategy for portfolio management, including reporting structures and the methodology for prioritizing projects, would need to be defined by the client. This included the integration of asset information for projects involving the building of new assets, the modification of existing assets and the maintenance of existing assets.

Once all the above high level requirements are defined an effective EVMS solution can be designed and implemented. The key to high level areas that will need to be addressed are:

- ▶ **Processes** – Improving the EVMS processes currently employed by Client and Delivery Vehicles.
- ▶ **People** – A PMO should be established for reduction in overhead costs, standardisation and streamlining of reporting. Project controls training and development of the project team members should be introduced.
- ▶ **Tools** – Upgrading, changing the tools currently used for improved integration, automation and analysis of risk.
- ▶ **Organisation of Data** – updating project data structures and architecture to enable improved benchmarking for estimating future projects, communication, integration of the contractor and client performance data, integration of capital project and maintenance data and simplified reporting.

Within each of these categories a variety of options and alternatives have already been identified to improve the EVM maturity and reporting processes, improve the standardization and sharing of information, and reduce overhead costs for the client. The recommendations included a range of alternatives which vary in terms of the anticipated benefits and the level of cooperation / change required from the client.

BACKGROUND

Because of an increased desire for management to have an increased focus on strategic portfolio management, Client is seeking improvement in estimating, strategic reporting, streamlining reporting processes and improving their earned value management methodology. The number of capital projects is increasing, this makes the effective management of projects and key resources more critical. Project planning and control functions become more critical as the volume of projects increases.

As our project list expands in numbers, the existing processes and procedures need to be improved in order to perform management and report on these projects. The program proposes to transform existing processes by creating a common source of project data and common data structures and codes for estimating and project controls.

Using historical project data to help make strategic business decisions can play a significant role in improving program performance. Historical data can help project selection or optioneering processes and help ensure that the right projects are selected. By establishing the correct methodologies, procedures, and systems to effectively use this information Client will be able to improve their project processes and to support the estimation, scheduling, and control of future capital projects.

Client has access to historical data and is now well placed to use this information strategically. The historical project data can be organised, normalized, and analysed to develop practical information that can be used to support estimating and scheduling, provide metrics and benchmarking data, develop conceptual estimating and scheduling tools, support strategic planning, and improve our project processes.

► Goals and Objectives

Business Goal/Objective	Value
Improved Project Estimating (Cost and Schedule)	Using historical project data to help make strategic business decisions, improved estimating confidence, improved project selection, reduced costs and timeframes for estimating.
Timely and accurate reporting	EVMS enhancements will allow accurate reporting of project performance with reduced reporting cycle times
Reduce overhead costs	Fewer people involved in compiling and fusing data for monthly performance reports.
Improve planning effectiveness	Enhanced planning and integration between programs as a result of improved planning data architecture and processes. In particular integrated planning for key milestones and key resources between project phases

► **Benefits for the Client:**

Action	Action Type	Description	First year costs (- indicates anticipated savings)
Increased confidence in estimating, faster estimate validation, reduced costs for estimating team.	Savings	Significant	\$
Reduced overhead - project controls and administrative staff by?? Each month end cycle.	Savings	Significant	\$
Improve project data structures for improvement in integrated planning and forecasting. Possibly resulting in optimized outage and resource planning.	Savings	Significant	\$
Improved financial and reporting and compliance	Savings	Significant	\$
Improved performance visibility at portfolio level enabling improved allocation of resources.	Savings	Significant	\$
Increased confidence in estimating, faster estimate validation, reduced costs for estimating team.	Savings	Significant	\$
Reduced overhead - project controls and administrative staff by 30 each month end cycle..	Savings	Reduction in FTE headcount by 30-50 per month	\$
Net First Year Savings	Savings	Significant	

PROJCON ADVISORY INNOVATION

ProjCon successfully assessed the project controls maturity and identified the number of value adding recommendations. These recommendations ranged from subtle changes to existing business processes, Such as improving time sheet discipline, through to transformational organisation restructure involving the implementation of a PMO.

ProjCon is continuing to work with the client as we developed a solution for sustained improvement in EVM maturity.

ABOUT PROJCON

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Our comprehensive array of products and services provide powerful, affordable solutions to virtually all aspects of the Project Controls. Contact us to find out how we can help you to build/strengthen your Project Controls capability.