Do EVMS & FFP Belong Together?

Australia’s Experience with EVMS on FFP contracts & some lessons learned.

Our Environment

- Large country with a small population
- Low Defence Budget:
  - 1996/97 Total approx AUS$10 Bn or 2% GDP
  - Capital component approx. AUS$2.3 Bn with 70% spent in Australia
  - Service strength 57000 Civilian 19000
- Small industrial base - further consolidating
- Mostly Fixed Price Contracts - 70% spent on projects with EVMS
Australian EVM History

- CSCSC applied to 2 projects in mid 1980s
- JPAC Report 243 (1986) requires adoption of CSCS
- Defence accepts recommendation & applies first on Submarine & ANZAC “mega”projects
- Formation of dedicated focal point (DPMS) in 1989
- Criteria published & first company validated 1990
- US/Australia mutual recognition late 92, trilateral acceptance of validations Feb 95
- ACSIG progressively developed, finalised 1993
- IPMC formed mid 93
Recommendation 30: CSCS be introduced to assist contractors upgrade their management information systems.

Recommendation 31: CSCS become the basis for cost and schedule reporting by contractors for all major projects.

Recommendation 32: Progress payments be geared to submission of satisfactory CSCS Report.
Initial Industry Response

- You can’t be serious
- We don’t operate that way
- Industry won’t tolerate this - we won’t do business with Defence
- It’s un-Australian!
Problems / objections

- Objections to EVM with Fixed Price contracts
- Objections to reporting actual costs
- Objections to reporting overheads
- Confusion as some within Defence too ready to accept industry viewpoint
- Failure of Defence to make it quite clear what the rules were
Myths

- FFP has no cost risk to the customer
- EVMS is too costly - an unnecessary overhead
- EVMS is not required for production
- We can’t divulge our costs/margin/profit/rates
EVMS Principles

EVMS

- is a PM system not Funds Management
- is a world’s best PM practice
- system enhancement encouraged
- provides the contractor and client with accurate status of the contract
- enables performance data summarisation to any level for effective decision making
Contractors’ View

- Need an integrated system to manage effectively
- EVMS is best project management practice
- Benefits from one set of business practices
- Cost overrun on FFP will impact profit
- Early visibility of problems essential for the company to remain in business
- Many aspects already applied, so incremental cost of EVMS low
Customer View

- Wants timely and accurate status visibility
- Early indications of cost/schedule overrun assist proactive management
- Cost/schedule problems a leading indicator of quality problems
- Risk sharing may be more cost effective than risk avoidance
Report Types

- CMACS - Collins class Submarines
- CDAMS - Anzac Frigates
- Price Based CPR - F111 AUP
- CPR in Hours - with actuals and EAC
- Cost Based CPR - our standard requirement
Early Review Issues

- Who sees what information (rates, profit, logs etc)
- Interview preparation - data availability
- Overhead management
  - single project companies
  - corporate overheads (G&A)
- Rebaselining - who owns the CBB?
Mature Industry Position

- Initial resistance to providing cost based EVM data has evaporated
- Acceptance of DoD’s requirement for CPR type reports
- Focus is on how to make EVMS outputs useful to both industry and the customer, including: hours based reports for production, weekly statusing, timely reports, forward looking emphasis
Progress Payment based on EV

- link to JPAC recommendations
- problems with defining and pricing high level milestones
- EV as the “best estimate” of progress
- companies desire to eliminate duplication between EVMS and invoicing systems
EV Payment Models

- 100% earned value
- mix of EV and milestones
### Mixed Model

#### Company Assumptions:

- EVP % of Month Completed = 0.3

#### Contract Provisions:

<table>
<thead>
<tr>
<th>Milestone Events</th>
<th>EV Percentage</th>
<th>Company Central Rate</th>
<th>Commonwealth's Bond Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV at Contract End</td>
<td>6.0</td>
<td>30,000,000</td>
<td>30,000,000</td>
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#### Interest Rates:

- Company Central Rate = 6.0%
- Commonwealth's Bond Rate = 4.0%

#### Milestone Milestone

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<tbody>
<tr>
<td>0.00%</td>
<td>4,223,560</td>
<td>34,223,560</td>
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</tr>
<tr>
<td>2.00%</td>
<td>1,284,016</td>
<td>20,406,466</td>
<td></td>
</tr>
<tr>
<td>4.00%</td>
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#### Claim Financials:

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#### Summary of Milestone Payments (except Initial) as a Percentage

- Total effect on interest over contract period = 100.00%
EV Payment Complexities

- comparing bids - time cost of money
- mobilisation payments
- lag between incurring cost and receiving payment
- material inventory
- picking low hanging fruit
- customer leverage vs. neutral cash flow
- companies new to EVMS - when can EV payment start
Preferred Model

- Mixed milestone / EVP used for all contracts with EVMS
- Majority of the price (50-90%) to EVP
- Rest on achievement of milestones
- Split varies according to project value, risk, complexity, duration
Verifying EV Based Claims

- Review CPR - complete, correct
- Alignment with schedule, narrative
- Sample check CA & WP data
- Recommend payment or query data
Lessons Learned

- Clear leadership and direction needed
- Industry concerns must be heard
- Trust can be built and new norms established - Partnership is key
- EV payment can work
- EVP complexities need to be appreciated
- EVP assists in integrating EVM to core business