VALUE IMPROVING PRACTICES

1 Background

The development and implementation of major projects makes increasing use of a range of formal review and analytical processes that have been shown to improve the chances of achieving a successful outcome. These are generally referred to as Value Improving Practices or VIPs. They are most effective when implemented during the early stages of a project, usually as part of the Front End Loading (FEL) activity.

Broadleaf offers support for several of the commonly recognised VIPs as well as:
- Additional processes for review and analysis during project development;
- Concept generation and review prior to the formulation of a business case;
- Overall business investment opportunity management processes.

This note describes the support Broadleaf can offer in these areas and provides an indication of the approach we commonly recommend to implementing VIPs that will enhance business outcomes. In addition to offering well tried methods and tools, Broadleaf’s team of senior personnel offer high grade facilitation and process management skills that can be applied to a range of requirements.

2 Basic Principles

While the details vary with the characteristics of a particular project and the nature of the review or analysis process being utilised, there are some basic principles that underpin the quality and value of VIPs and related exercises. These include the following:

Table 1: Principles

<table>
<thead>
<tr>
<th>Timing</th>
<th>Undertake the exercise at times that balance the availability of relevant information and the need to ensure there is sufficient flexibility and time for the outcomes to be used. The timing may also be driven by the need to succeed at the next project approval stage.</th>
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</thead>
<tbody>
<tr>
<td>Process</td>
<td>Use a well-prepared and well-structured process, taking account of any relevant Standards, to ensure that all facets of the project are covered with a balanced application of effort and time to each one.</td>
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<td>Facilitation</td>
<td>Use independent facilitation to enhance the rigour and integrity of the process. This also allows participants to devote their energy towards the content of the exercise while the process is managed by the facilitator.</td>
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<td>Participation</td>
<td>Engage the people required to ensure comprehensive coverage of all relevant areas of the project, from the business vision to engineering, implementation and on into operation, while promoting team integration and providing a viable group for a workshop or other form of interaction.</td>
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<td>Recording</td>
<td>Ensure the conduct and outcomes of the process are recorded comprehensively.</td>
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<td>Action</td>
<td>Transfer the outcomes effectively into project design and implementation.</td>
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3 VIPs for Enhancing Business Outcomes

An overview of the VIPs and other processes for which we offer support is set out in Table 2.

The timing of these exercises can vary. If the optimum point in a project has passed without being able to conduct a review or analysis, value may still be gained by tailoring the approach to suit the situation of the project when the opportunity to do so does arise. Figure 1 indicates what is likely to be the most appropriate timing for each of the processes outlined here.

**Figure 1: Timing**

<table>
<thead>
<tr>
<th>Concept &amp; Option Development</th>
<th>FEL1 &amp; Business Case</th>
<th>Prefeasibility FEL2 &amp; Scope Selection</th>
<th>Feasibility FEL3 &amp; Detailed Definition</th>
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<tbody>
<tr>
<td>Opportunity identification</td>
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<td>Strategic option modeling</td>
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<td>Risk analysis</td>
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<td>Risk modeling</td>
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<td>Technology selection</td>
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<td>Process simplification</td>
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<td>Waste minimisation</td>
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<td>Constructability review</td>
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<td>Value management</td>
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Our strong facilitation skills are widely applicable and from time to time we are called upon to assist in structuring and facilitating a process to meet special requirements. We are always pleased to explore such requirements in addition to those set out here. We have a track record of providing support that delivers sufficient rigour to ensure the integrity of the outcome, capitalising on the experience and creative input of the participants without placing an onerous burden on them.

4 Contacts

If you would like further information about Value Improving Practices, or our other facilitation activities, please contact one of the members of Broadleaf shown below.

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### Table 2: Processes

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<tr>
<th>Process</th>
<th>Applications and outcomes</th>
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| **Strategic opportunity identification**     | − Exploring the issues and the decisions available to the business  
− Building strategic options associated with a market, resource or capability  
− Identifying where analysis can be directed to resolve strategic decisions  
− Overcoming the barriers associated with the scale and complexity of business development |
| **Strategic option modelling**               | − Constructing cash flow and other models that balance the detail required for realistic representation against the need for transparency and ready interpretation  
− Examining the uncertainty associated with cash flows, cash flow drivers and timing, and incorporating this uncertainty into a quantitative risk model  
− Using quantitative risk models to inform decision making by assessing the main sources of uncertainty and comparing the forecast financial performance of investment options |
| **Risk analysis**                            | − Establishing priorities and directing attention towards issues requiring attention in later work by structured identification and analysis of risks  
− Planning risk treatments to ensure that later activities include tasks that will address major risks and opportunities and so enhance the eventual outcome |
| **Quantitative risk modelling**              | − Modelling the cost, schedule and cash flow of proposed investments  
− Establishing realistic targets, commitments and contingency requirements  
− Presenting outcomes to support requests for funding and approval to proceed with further work |
| **Technology selection**                     | − Comparing technology options for system implementation using risk and opportunity review processes  
− Identifying the relative strengths and weaknesses of alternatives to assist in technology option selection |
| **Process simplification**                   | − Challenging the need for the unit operations, equipment redundancy, flexibility and other ‘nice to haves’ as part of early design review and value management exercises  
− Mapping current processes and procedures, and testing and optimising them, through the use of operational breakdown matrices and Procedural HAZOPs  
− Optimising processes through human error and task analysis  
− Reviewing integrated recycles and examining alternative approaches that will achieve the required outcome more cost-effectively |
| **Waste minimisation**                       | − Exploring options to eliminate, reduce, reuse or recycle material and energy wastes  
− Identifying the real costs of wastes and justifying expenditure on minimisation options |
| **Constructability review**                  | − Reviewing construction plans to identify risks to be resolved and opportunities to be exploited  
− Identifying priorities for action to improve plans |
| **Value engineering & value management**     | − Reviewing functions to identify options for value improvement  
− Using formal workshop facilitation and processes in compliance with Standards  
− Integrated assessment of options to prepare strategic improvements plans |