

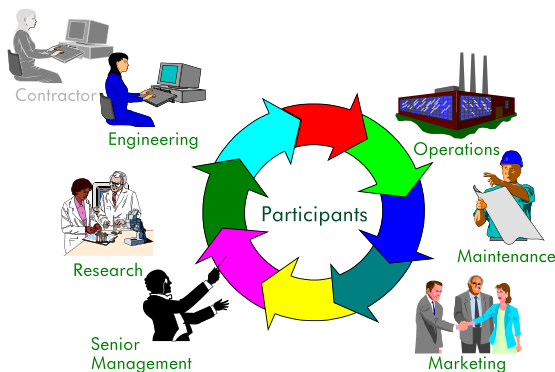
## Value For Money In Capital Projects – A New Approach

In capital intensive businesses, success depends at as much on the effective implementation of projects as it does on efficient use of assets. We are all aware that many projects cost more than intended, are delivered late and fail to provide the promised capabilities. Still more meet the published project objectives but don't contribute to strategic success.

We believe that the tensions that cause these problems are established during the project justification and sanction process. Careful consideration of current practice has led us to conclude that there is a better way.

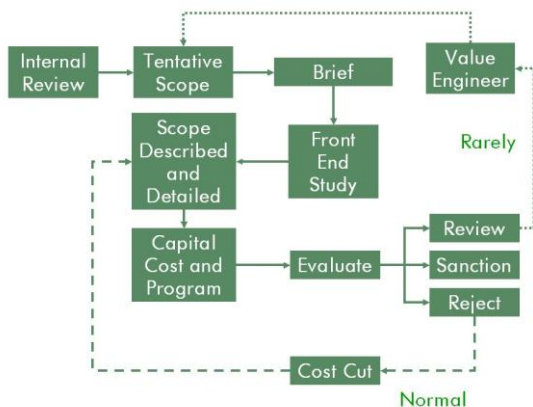
### Current Practice

Projects involve many groups all of whom have different views of what is important. Normally, the views of the various groups are funnelled through the Engineering or Project Group. Frequently, the participants get only a single chance to contribute and rarely is there a proper debate about the relative merits of each group's desires.



This information is collated to produce a brief for a "Front End Study or project definition document. An external contractor often carries out this study.

To meet the required precision on estimates, this tends to be a relatively lengthy and costly process focused on documenting the basis for the estimate and justifying the suggested cost.



At this stage, all the effort is focused on detailing the requirements to confirm the cost. There is little time to clarify requirements, discuss options and agree

© Fulcrum Management Limited 2005

compromises. As a result what is ultimately specified is unlikely to match what the various interested parties want. By the time they get a chance to contribute it is too late.

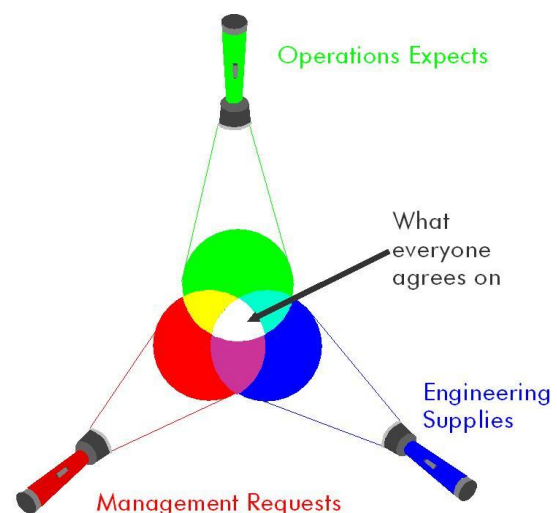
The process distorts the scope and the costs of the features included may bear no relation to their value to the project.

When the study findings are fed back to senior management, the costs indicated frequently exceed what is considered justifiable. Time pressures usually mean that any cost cutting is done very rapidly and this limits opportunities for dialogue.

In many cases there are clear differences between what the management asked for, what operations were expecting and what was specified for the project.

### The problems

- The process concentrates on cost not value.
- Produces an "accurate" cost estimate but not agreement on scope.



- There is no common view of the objectives and relative merits of features.
- There is rarely time to revisit the intent if costs are too high.
- Scope cuts are misunderstood and resented by those affected.

So the proposed scope does not focus on the real needs and the process does not win the hearts and minds of the participants. Each group feels that they are doing a subtly different project. This is a recipe for the scope to drift during the implementation stages.

### The better way

If the scope is to remain fixed for the duration of the project then it is essential that all participants reach a common view of the objectives. This will help them understand which features are necessary to achieve

## Value For Money In Capital Projects – A New Approach

the project's objectives and which they have some discretion over. The focus needs to be on reaching a common understanding of the most appropriate set of features to include. If this is not done, then any cost estimate, however "accurate" is of little value. The current process can not achieve this.

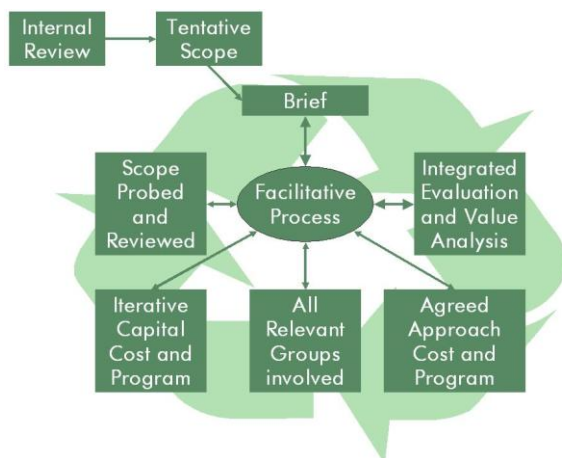
Rather than a single pass process, what is needed is a facilitative approach with constant recycling and dialogue. The focus should be on probing the scope with the participants.

This balances the needs of each group, against the project objectives. It ensures that everyone understands the relative merits and costs of each feature. It brings assumptions into the open and keeps the project objectives to the forefront.

The scope is "owned" by all participants, they understand the compromises, they have had their say and accept group decisions. The risk of scope drift is lower and you have more certainty on costs.

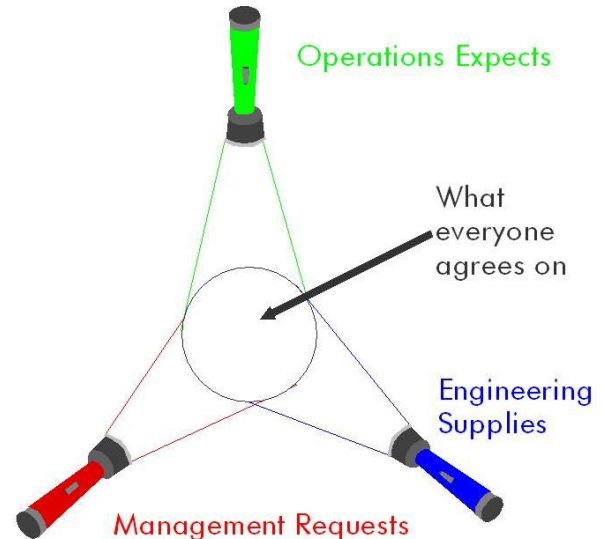
### How to do it

The current approach is based on the application of engineering and project management skills to produce outline solutions to "known" problems, detail and document the proposed design to allow a cost estimate to be developed. These skills remain necessary in the alternative approach we are proposing, they are necessary but not sufficient.



An additional set of facilitation skills is needed together with an understanding of language and perspectives of the other participants. This means that the facilitators require a through understanding of the engineering, operations, marketing and strategic management perspectives together with a capability to encourage debate on the key issues.

Arriving at an acceptable and appropriate project scope will need compromises between features and also about the detail of specifications. The facilitators will need to be able to act as honest brokers in these discussions and enable the participants to reach a consensus on how to proceed. It is crucial that the participants feel that they have decided on the most appropriate solution. If they feel it is imposed, then the tensions for the project scope to drift during the



implementation stage will remain. Because of this, it is better if the facilitators are independent and have no long term interest in the approval of the project.

Once agreement has been reached on the scope, it can be detailed and costs generated using the current approach.

### What about the costs and time

This approach is slightly more expensive than the conventional front end study for the same level of "accuracy" of cost estimate. You will be surprised how little the process costs and how small is the effect on the costing accuracy. We would be delighted to show you the evidence.

But, you will be able to present the project confident that everyone is focused the same objectives and that there will be no pressure for additional features to be introduced during the design and implementation stages.

## Value For Money In Capital Projects – A New Approach

### What Is Value For Money?

Value for money is one of those concepts that everyone claims to know when they see it but finds it difficult to define. So for what it is worth, this is our attempt.

### Cost

The cost of providing any asset is the amount of resources spent to acquire it. For effective decision making, this needs to be done on a fair basis.

### Worth

Similarly, the worth of an asset to the investor is the economic value of its contribution to achieving corporate objectives. If the project objectives are not fully aligned with corporate objectives then the project is less likely to provide value for money. Again the contribution must be assessed on a fair basis.



### Value For Money

So the value of an investment is

$$\text{Value} = \text{Worth} / \text{Cost.}$$

So value can be enhanced by increasing worth, decreasing cost or both.

When there are problems in justifying a project, it is easy to spot opportunities for cutting cost, but more difficult to see how to increase value.

If you do cut costs, how can you be sure you cut out the least valuable features?

How do you ensure that you don't lose more than you gain?

How do you satisfy conflicting demands and achieve the project's true objectives?

How do you maximise the value of the project?

---

### Programme Leaders

Jim Yates has over 25 years experience in project definition and implementation.

He has held Engineering, Project Management and Engineering Management positions and has had board responsibility for HR, Marketing and Business Development. He is a partner in fmea.

Jim holds a Degree in Chemical Engineering and a MBA; he is a Fellow of the Institution of Chemical Engineers and tutors on the Open University Business School's MBA Programme.

Keith Plumb is the Senior Partner of Derek Plumb and Partners, a Chartered Chemical Engineer and graduate of Manchester Business School. He has had over 25 years of experience within the fine chemical and pharmaceutical industries.

Keith has been involved in all stages of multi-million pound engineering projects as well as being involved in several development projects.

Both have a blend of engineering and management skills, which allow them to understand and balance the technical and commercial aspects of capital projects. This also enables them to communicate effectively with all the interested groups.

---



DEREK PLUMB AND PARTNERS

This programme is a joint venture between Fulcrum Management and Derek Plumb & Partners. For further details please contact us at the address below.



Fulcrum Management Limited  
19 Bean Leach Avenue, Stockport, SK2 5JA, United Kingdom  
Telephone +44 (0) 161 487 3520  
Email [info@fulcrum-management.co.uk](mailto:info@fulcrum-management.co.uk)  
<http://www.fulcrum-management.co.uk>