

STRATEGIC PLANNING THROUGH VALUE ENGINEERING

This document was presented at the 1992 International Conference of the Society of American Value Engineers (SAVE) at Phoenix, Arizona by Dr. David R. Stevens, Wentworth Falls, Australia. It was published in the SAVE Annual Proceedings and is copyrighted (SAVE, 1992). Permission to upload this document to CompuServe has been given by SAVE.

Dr. David R. Stevens has worked as teacher, psychologist, and in the hospitality industry in senior executive positions; in major consultancy organizations such as Cooper & Lybrand, and WS Atkins Engineering in the UK.

He was co-founding director of Value Management Pty. Ltd. in conjunction with Rawlinsons, the international quantity surveying company.

He has written many articles and books on the participatory process in strategic planning and VM, presented papers in over a dozen countries, and carried out more than 400 workshops covering most industries including many of Australia's largest companies.

He held a visiting professorship at the University of Nevada and has carried out major consulting assignments in Mauritius, Tahiti, the United States, UK, Hong Kong, New Zealand, and Australia.

ABSTRACT

The process described creates a unique combination of skills to provide a radical, creative and fully responsible conceptual framework, leading to the optimal design concepts for a major development. It describes a methodology for achieving this, utilizing the group problem solving participatory strategic planning and participatory value management techniques, used for a \$250 million National Museum in Canberra, the capital city of Australia.

INTRODUCTION

Why do strategic planning through VE, or VM as it is most commonly known in Australia?

First it seems this process would be most applicable to the construction industry and especially at the initial stages of construction. Therefore the process described uses a unique combination of skills which should provide a radical, creative and fully responsible conceptual framework which in turn will lead to optimal design concepts for a major development.

This paper puts forward a methodology for achieving this, utilizing the group problem solving techniques, described by me as participatory strategic planning (PSP) and participatory value management (PVM) for a proposed strategic planning exercise for a \$250 million national museum.

THE CLIENT'S REQUIREMENTS

The cultural diversity of Australia, with its integrated federal and state political systems, demands the development and interpretation of a nationally representative collection of statements to reflect the cultural heritage of the many groups which comprise Australian society which will be housed in a new national museum.

There must be an holistic view of Australian society. Its cultural democracy demands an outward looking marketing orientation which will ensure the museum responds to the needs of existing and future audiences providing:

a) An environmental education allowing people to gain better understanding of major environmental challenges and the evolution of the Australian continent with special land forms, climate, flora and fauna.

b) A meeting place and platform for exchange of ideas to provide debate about contemporary social issues through three basic themes:

(i) - the history of aboriginal culture spanning a period of some forty thousand years.

(ii) - the impact of settlement from 1788 to 2001.

(iii) - the interaction of Australians with their environment

and related issues, confronting present and future generations.

There will need to be an interdisciplinary approach in the development of collections and interpretation, as well as the involvement of a diverse range of people in the development of the museum, not only in socioeconomic and cultural terms, but in terms of varied skills required, including those of the museologist, the artist, communicators and educationalist.

The museum's resources ultimately must be available to all citizens through a multitude of channels including education systems, community groups, publications, mass media etc.

CRITICAL AREAS TO BE ADDRESSED

The Strategic Planning Sub-Committee of the National Museum of Australia requires a strategic plan which will need to consider a wide range of issues. These will include:

(i) - the organization structure of the museum including administrative and management structures.

(ii) - the training of staff, especially aboriginal and Torres Strait Islanders who may either act as advisors or be employed by the museum.

(iii) - Communication, especially between the national museum and other state and national museums such as maritime and aviation museums.

(iv) - The museum display themes, the weighting of such themes in terms of exhibition dominance and expected response by users.

(v) - Formal versus informal experiences; and technical considerations like "virtual reality" and computer simulations.

(vi) - Marketing of the museum itself and its exhibitions.

(vii) - The level of use of the museum services by visitors as well as users of the museums public programs.

(ix) - The development of performance indicators to provide a feedback loop on an on going basis to ensure the museum constantly retains its relevance to society's needs.

(x) - Research and collection policies, strategies and priorities.

(xi) - A development program and phases of this project.

(xii) - A consideration of capital and current costs in terms of the site, architectural form and experiences provided against the benefits provided to the people of Australia (cost benefit analysis).

(xiii) - The internal environment and services such as air

conditioning etc.

(xiv) - The museum as a venue for tourism.

- 2. specifically on the history of Europeans in Australia since 1788.
- 3. concentrates on the Australian environment in all aspects.

AFTER EACH ITERATION THE PLAN IS MORE FINELY TUNED

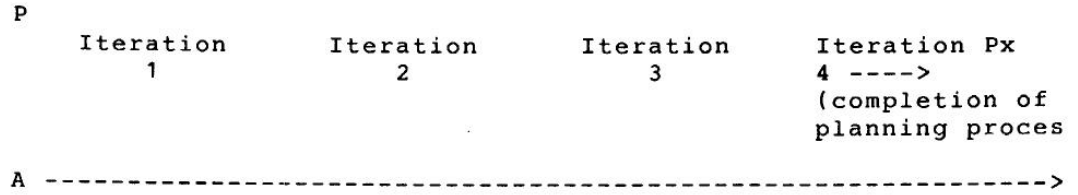


Figure 2

(xv) - The location, site, building envelope and form to create an institution of world class excellence, including roads, car parking and indoor and outdoor exhibition spaces.

(xvi) - The size, flexibility and expansion of facilities to meet requirements of a modern museum now and in the future; to reflect Australian character and traditions.

(xvii) - Retail outlets including theaters, shops, restaurants etc to maximize opportunities for the generation of funds for private sector sponsorship.

(xviii) - Finally an indicative cost plan, excluding capital works, including such things as human resources, exhibitions, advertising collateral etc.

(xix) - A consideration of capital and current costs in terms of the site, architectural form and experiences provided against the benefits provided to the people of Australia.

METHODOLOGY

To produce a strategic plan to address all these issues, a consulting consortium blending a variety of skills, and techniques, including VM, was considered the best approach.

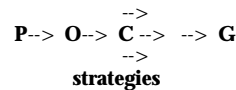
Philosophy: The Participatory Approach To Strategic Planning.

This consulting consortium assembled is a strong advocate of participatory strategic planning processes⁶

This philosophy asserts that the expertise required for strategic planning for any particular organization lies within that organization and its associated resources. In this instance the consortium believes the expertise lies within the Steering Committee and an associated three task forces. These three task forces are:

- 1. specifically devoted to considerations of aboriginal Australia.

It is considered that through participation comes ownership, and through ownership comes commitment, to the goals formulated in the plan.



P = participation, **O** = ownership
C = commitment, **G** = goals

Figure 1

The role of the consortium, primarily, is to ensure that the process of strategic planning is implemented in the optimal way and that it covers all of the critical areas, mentioned above, ensuring they all are addressed in the most specific way.

The consortium also believes that strategic direction alone is not sufficient. There needs to be clear tactical implementation of strategic direction for a strategic plan to be complete. That means there should be clear delineation of the goals subordinated under each strategic direction; specific actions or tactics to be carried out; who should be carrying out those specific responsibilities; and for the tactics to be quantified in terms of time scales, due dates and specific budgets.

The model of strategic planning developed by me sees initial strategic planning as a macro process which then subsumes human resources planning, marketing planning and efficiency and productivity enhancement planning, within the strategic planning process.

See Figure 2 and 3

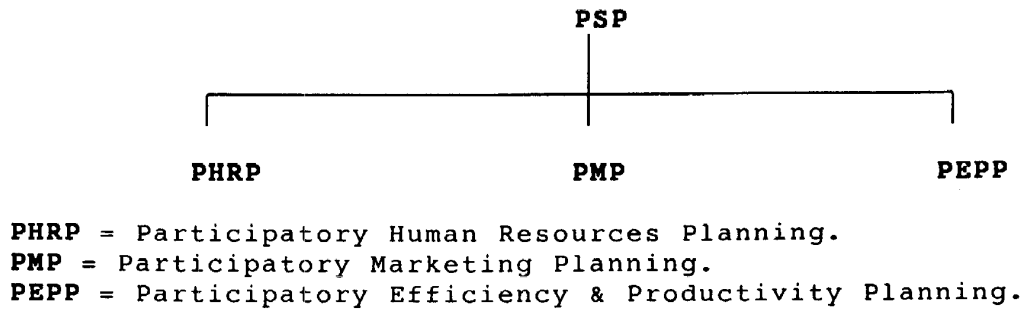


Figure 3

The strategic planning process will first of all validate the existing mission of the National Museum or formulate a new one.

It will clearly define the operating environment without actually detailing an operational plan.

It will define the strategies and tactics to achieve that operating environment.

It will formulate a feedback loop through developing relevant performance indicators to ensure the iterative approach is maintained.

It will closely examine inter-relations between site facilities, human resources requirements, cost structure and the development path of the institution in conjunction with its research base.

Finally the strategic plans will culminate in a VM workshop.

The Proposed Approach In Terms of Sequence of Events

STAGE 1 DESK RESEARCH.

The Project Director will review all existing reports relevant to this exercise, relevant committee minutes and carry out one to one interviews with museum staff and the Aboriginal and Torres Strait Islanders Advisory Committee etc. He will also make formal link with hisoverseas contacts and any overseas contacts put forward by the National Museum itself.

STAGE 2 STRATEGIC PLANNING WORKSHOPS.

This is a vital component in the data gathering and setting of strategic direction within the context of the planning process.

a) Relevant members of the museum staff. The first two day strategic planning workshop will be carried out with the Steering Committee and perhaps one or two key members of the consortium. This strategic planning exercise will determine, at the macro level, the overall direction in which the project will be moving.

b) Task Force One: (Aboriginal Australia). This is the second two day strategic planning workshop in which full participation will be encouraged. The Aboriginal and Torres Strait Islanders Advisory Committee and appropriate state and national level resources will be invited to participate in the workshop. One or two of the consortium experts will participate in this workshop.

c) Task Force-Two (Australia Since 1788). Relevant members of the Aboriginal and Torres Strait Islanders Advisory Committee will attend. This also will be a two day participatory strategic planning workshop which will address all those issues relevant to this particular task force. It will also include participants from national and state

levels and relevant consortium members.

d) Task Force-Three (Australian Environment). Relevant Members of the Aboriginal and Torres Strait Islander Advisory Committee will attend. Again this a two day participatory strategic planning workshop. It will also invite participation from national and state levels and relevant consortium members.

e) Steering committee Review. This is an important two day participatory strategic planning workshop which consisting of representation from the steering committee and representatives from each of the task forces, as well as representation from state and national level participants. Depending upon the findings of the four preceding workshops selected members of the consortium will participate in this workshop. Please note that all of the workshops carried out at this stage will be recorded in situ using a stenographer with a word processor. This will ensure retention of all important information.

The Structure Of These Workshops Is:

a) Introduction by the facilitator to key terminology and concepts in participatory strategic planning.

b) Induction or "stroking" of participants to ensure maximum participation and most effective group problem solving.

c) Setting the planning period and other parameters.

d) The strategic diagnosis for the particular workshop through evaluation of strengths, weaknesses, opportunities and threats.

e) Statement of the mission of that particular group.

f) Tactical Implementation Of The Action Plan. Specific critical issues are defined in terms of goals and various actions with people given responsibilities for carrying out certain actions by specific times over specific time periods with specific costs etc.

g) The Resources Allocation. A quantification of the human resources, financial resources and physical resources required to achieve the end goal.

h) The Financial Plan. A specification of the probable revenues that will eventuate within the components of this workshop stated against the probable costs and taken over a fixed scenario.

I am not going to go into detail describing these various components as they are clearly laidout in my book⁶.

Details of the process of "Participatory Strategic Planning" workshops will be elaborated upon at the question stage, if this is required.

STAGE 3 ONE DAY STRATEGIC PLANNING WORKSHOPS.

a) Marketing Workshop. This is a one day marketing workshop in which members of the consortium offering marketing expertise, external academic associates offering expertise; members of the consortium; relevant personnel from the various task forces and steering committee and other such participants as will be nominated at the time by the Steering Committee, will attend this important workshop. It will be facilitated and recorded as for the strategic planning workshops mentioned.

This workshop's main objective will be to anticipate the real marketing needs within the context of the strategic plan and will determine what market research activities and market analysis will need to be carried out. It also will serve as a briefing for the market analysis to be carried out before the April report.

b) The Human Resources Workshop. Consultants will be selected as for the marketing workshop. Members of the task forces and Steering Committee will be selected on the basis of expertise and interest.

c) Delphi Technique. At this point the Project Director will negotiate with the Steering Committee to ascertain whether the delphi technique needs to be carried out, to ensure that the direction of the planning is as fully documented as possible with the optimal direction taking place. If it is decided to carry out the delphi technique, a think tank of experts in various areas, selected from the strategic planning workshops will be put together. Over a three week period, a full delphi program will be carried out.

STAGE 4 MARKET ANALYSIS.

This will consist of field work, probably consisting of telephone interviews, surveys and some focus groups. The results of the analysis will provide very valuable input to the next stage of the planning procedure and will also give direction as to how the performance indicators should be constructed to provide feedback loops.

STAGE 5 THREE DAY VALUE MANAGEMENT WORKSHOP.

This is one of the most critical components of the strategic planning methodology and its inclusion makes this strategic planning methodology unique (at least in Australia).

VM will provide a structured and systematic effort to achieve essential functions at the lowest possible cost considered consistent with needed performance. Underlying this concept is the principle that there is always more than one way to achieve a function and that examination of alternatives will produce the most acceptable conclusion.

Function analysis by partners with invested interests will clearly and significantly identify what things actually do or perhaps more importantly what they must do to achieve the project objectives. Through the analysis of functions it will be possible to identify wastage, duplication, and unnecessary expenditure, thus providing the opportunity for value to be improved. The function analysis perspective not only enables VM to explore the project and/or program brief, but also to test the assumptions and needs perceived by the developers of the brief.

This consortium will be advising the National Museum on the on-going benefits of using this process, during design construction and implementation stages of the museum.

This paper will not go into the details of the VM methodology, except that it closely follows the traditional model.

PEOPLE PARTICIPATING IN THE VM WORKSHOP

This would include the architect; the quantity surveyor; advisors on technical services like air conditioning; the human resources consultant; the marketing consultant; representatives from the Steering Committee and from the three task forces, and the political advisor.

The VM workshop will be looking at all aspects of the project including ranking of themes, space requirements, implications of the building envelope both internal and external, organizational structure, and other cost considerations.

THE CONSORTIUM

To successfully carry out the strategic planning assignment, a multi-disciplinary team is required. It is described because its membership all to be involved in the VM, is different from the usual VM team.

PROJECT AUDITING AND FINESSING OF THE PLAN

The Kortlang Group, Sydney will ensure the end product is acceptable from a political point of view, on a bi-partisan basis, through liaison with appropriate persons.

The Kortlang Group has unrivaled bi-partisan access to the federal government and all state governments in Australia, together with extensive contacts throughout the Asia-Pacific region. The company also has extensive media contacts. This will be another area that the consortium will consider utilizing, if appropriate, towards the end of the assignment.

DATA COLLECTION AND ANALYSIS

The collection and analysis of both quantitative and qualitative data is an integral part of both the development of the strategic plan and its implementation.

Different techniques and statistical tools will be used in different circumstances and at different stages. Data collection procedures include surveys, focus groups, structured interviews, and open discussion. These data will be subject to appropriate analysis ranging from sophisticated multivariate techniques such as discriminant and analysis to informed interpretation and judgment.

A second burst of research activity follows upon the VM workshop. The results of this re-search will be crucial for the preparation of the final draft of the strategic plan. Research recommendations are incorporated in the strategic plan.

The museum will need to continually respond to the needs of its consumers, both individual and institutional. It will need to market its products, both nationally and internationally. This requires that the design and analysis techniques of regular, ongoing market research to be included in the recommendations of the strategic plan.

COST PLANNING

Rawlinsons and E C Harris will play a dominant role in the costing exercise associated with the VM workshop towards the end of the project. As quantity surveyors Rawlinsons network spreads internationally through E C Harris in London, Europe and Asia. E C Harris has carried out major quantity surveying, cost planning and project management exercises for museums and galleries in the UK and Europe.

MARKETING

Professor Geoffrey Kiel Joint Managing Director of Marketshare, a well known national marketing consultancy, will have responsibility for the design of on-going market research and other marketing requirements of the project. Marketshare has significant reputation in the marketing of various institutions.

UTILIZATION OF SPACE: CONSULTANT ARCHITECT

An architect will be required, especially at the VM stage, to assist in the formulation of space requirements and building envelope considerations. Robin Gibson one of Queensland's leading architect joins the consortium as a specialist adviser. His experience in public buildings in the arts is considerable having been the architect for the entire Queensland Cultural Complex which includes the State Museum, State Art Gallery and State Library.

His experience on those projects included being involved from the earliest stage of the projects and participating with the client bodies in the various strategies that had to be developed to

ultimately determine what was to be incorporated in the design briefs.

DEVELOPMENT OF ENVIRONMENTAL CONTROL SYSTEMS FOR MUSEUMS

Dr Colin Pearson is Director of the National Centre for Cultural Heritage, Science Studies and the University of Canberra. He will provide input at one of the strategic planning workshops and at the VM workshop, with respect to providing alternatives to cultural heritage management and the conservation of cultural materials. In conjunction with the architect he will be looking at the promotion of passive environmental control systems for museums on a cost reduction basis. He will also be looking at the training of conservators in conjunction with other people involved in human resources component.

HUMAN RESOURCES MANAGEMENT

Dr Amar Galla, Head of the Cultural Heritage science studies University of Canberra, will provide alternative views on the organizational, communication and training facets of this project, especially with respect to ethnic considerations. He will have input in one of the strategic planning workshops and the VM workshop.

CONCLUSIONS OF STRATEGIC PLANNING THROUGH VE/VM

The consortium at the time of putting this paper together has not received an indication of whether their tender for this

piece of consultancy has been successful. However we believe whether or not we are successful, the methodology is very appropriate for the requirements as specified by the client.

In a complex building such as this, where there is an integration of the human resources requirements, the displays, the building structure and the external environment plus many other factors, we think this strategic planning cum VE/VM approach is correct. An analogy would be a strategic plan for an entire shopping complex including all of the interior design, the display for each of the different shops and planning for the human resources requirements in each of the shops, as well as for the overall project itself and its external environment.

There are many common areas between participatory strategic planning as I have briefly described it and VM in its traditional sense, given that the VM is carried out in the non-adversarial way. For example, the "strategic diagnosis" arrives at a series of critical issues in the strategic planning process. In VM certain dimensions will be decided upon as part of the development program. Within those elements certain critical issues (or the VM equivalent) will be decided upon using functional analysis, weighted rankings and various other forms of evaluation.

The emphasis on the iterative approach in participatory strategic planning is echoed in the need for VM to be used at different stages within a development concept.

It would be interesting to see if the marriage of strategic planning and VE can also be applied to other areas such as manufacturing and administrative procedures.

TABLE ONE: METHODOLOGY FLOW CHART

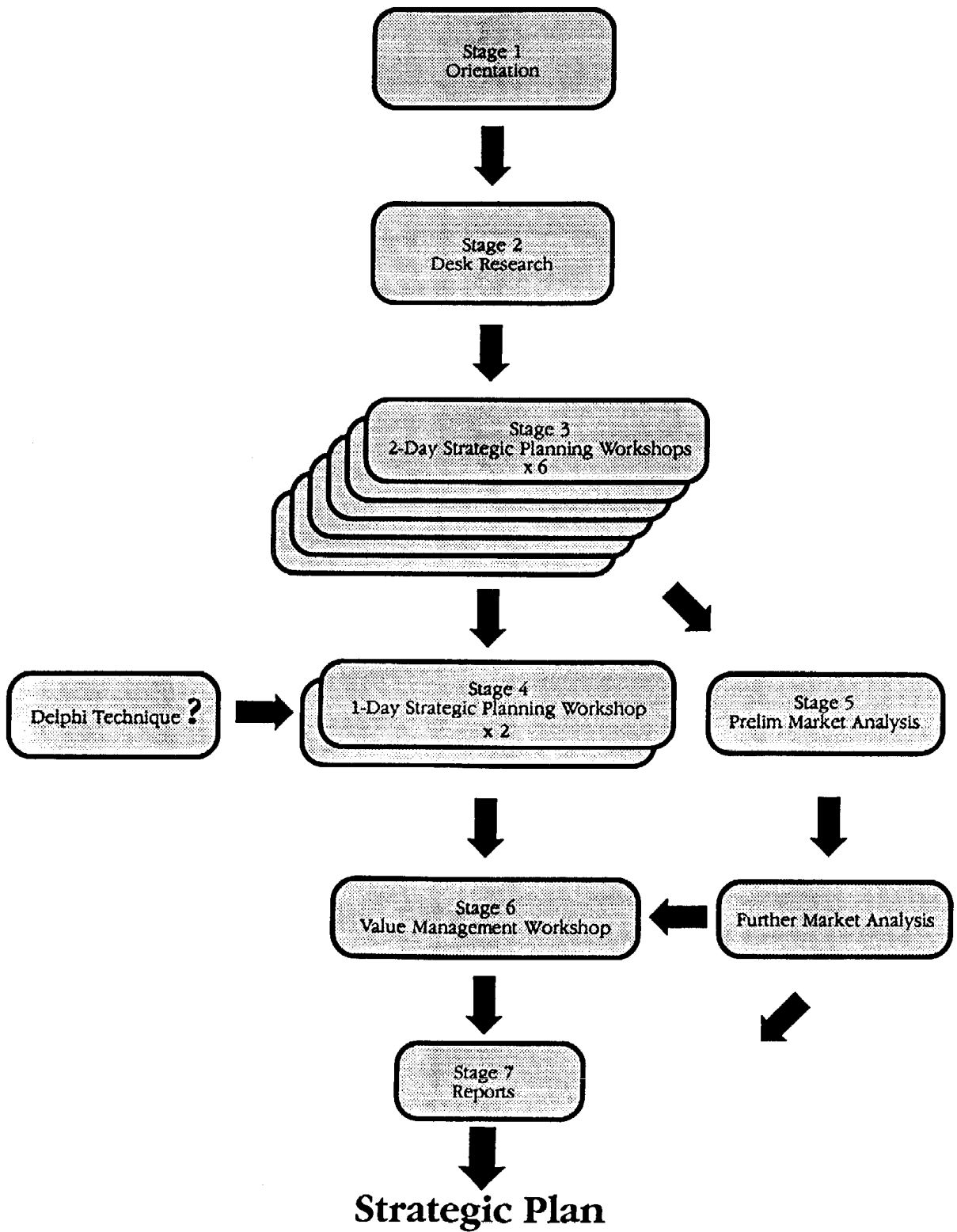
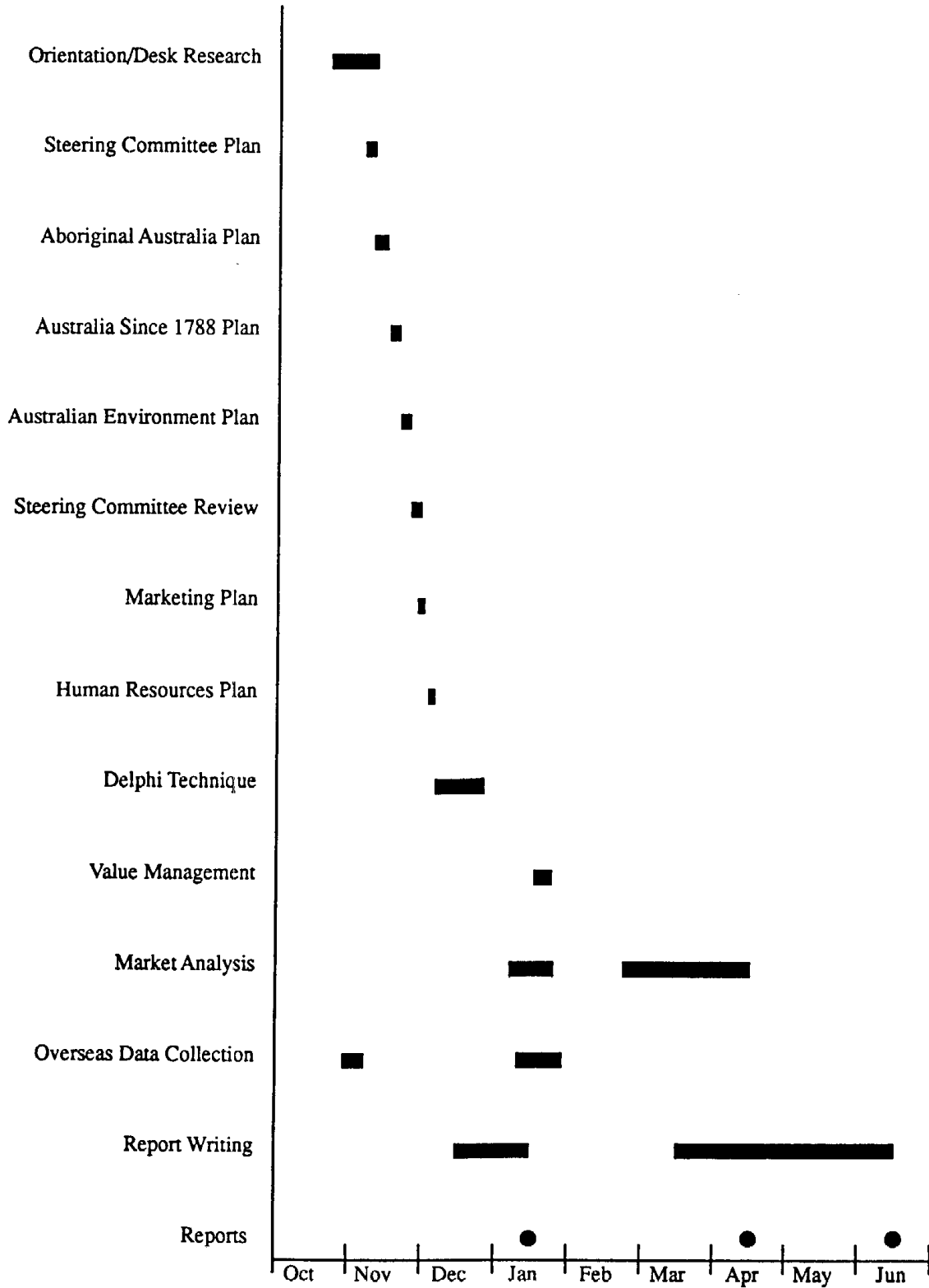


TABLE TWO: SCHEDULE OF EVENTS



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