Chapter 8: Case studies

8.1 Introduction

This chapter presents empirical evidence to add support to the overall argument that the method developed is valuable. To keep this chapter from being overly detailed, and to enable the progress of the Process to be more readily understood, minimal descriptive content has been included in this chapter. Fuller details of each case study are given in Appendix 4, which for each case adds the following data:

1. More detail on the entity under study
2. Sampling considerations: how that entity fulfilled the sample design
3. The procedures used (environment, participants, and activities)
4. A summary of the output from that case.

In other words, this chapter focuses on the development of the Process, while Appendix 4 describe each case study in more detail. The goal has been to make this chapter self-contained, for those wanting an overview of the development of SNM, by removing most of the case-specific data to Appendix 4.

Taking this chapter and Appendix 4 together, the combined structure for each case closely follows the standard sequence of action research, for each of the seven cases in turn. The reporting format for each case begins with background data, then discusses three elements in a sequence corresponding closely to Lewin's (1946) cycle of action research (planning, action, reflection). The following table shows the cycle, and the location of each element.
### Table 8.1 Location of Case Data

<table>
<thead>
<tr>
<th>Element</th>
<th>Components</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Background to this case</td>
<td>The entity involved in the case: its purpose, activities, scale, history, ownership, governance, and funding (though not all of these were relevant for all entities studied). The extent of this study, in terms of the taxonomy given in chapter 7, section 7.1.</td>
<td>Basic data in this chapter; remainder in Appendix 4</td>
</tr>
<tr>
<td>2. Procedure for this case</td>
<td>Recruitment of participants. Environment for the study. Activities carried out.</td>
<td>Appendix 4</td>
</tr>
<tr>
<td>3. Output from this case</td>
<td>Because the focus of this thesis is on the development of the method rather than the presentation of data, findings (in terms of content) are briefly summarized, and discussed here only in so far as they shed light on the development of the Process.¹</td>
<td>Appendix 4</td>
</tr>
<tr>
<td>4. Reflections on the development of SNM in this case</td>
<td>The reflection sequence is based on (1) what was expected, (2) what was observed, (3) any difference between those, (4) possible reasons for that difference, (5) how that problem could be resolved in the next cycle.</td>
<td>This chapter</td>
</tr>
<tr>
<td>5. Issues to be resolved with the next case.</td>
<td>These are separated into the practical (concerned with the smoother administration of the process) and the theoretical (leading to questioning of the theory-so-far).</td>
<td>This chapter</td>
</tr>
</tbody>
</table>

### 8.1.1 Preparation for Fieldwork

For the thesis fieldwork, the original plan was to work with six organizations, of varying sizes and types, as outlined in chapter 7, section 7.1. The plan was, as far as possible, to begin with less complex organizations, resolve any initial problems with the method, and gradually to move on to more and more complex organizations.

**Initial response was slow**

Perhaps naively, I had expected that an offer of what amounted to free consultancy work would be eagerly accepted by organizations. I placed a description of my thesis work on a web page, optimized it to attain a high ranking on searches for “scenario planning Adelaide” (not difficult: there was no competition) and waited for inquiries to flow in. Nothing happened.

¹. For each case, I produced a separate report for the organization on whose behalf that study was done. As these reports were written in a consultancy rather than academic style, included some in-confidence business data, and averaged around 50 pages, the full findings are not included here.
then began contacting local organizations that I thought might feel a need to anticipate their futures. In a city with a population of over a million, and with an estimated 53,000 business entries in the 2001 telephone directory, I did not anticipate any problems finding cases. However, after approaching 11 different organizations during 2001-02, many through personal contacts (which should have helped to increase the probability of acceptance), I was unable to convince a single organization to agree to begin participation in the project. Though no contacted organization rejected my proposal, and most were favourably inclined, I encountered the following difficulties:

- Organizations were wary because the service was offered at no cost, and perhaps because it was a student project. One contact remarked that “admitting you’re doing a Ph.D is the kiss of death” – implying that a thesis project was seen as long, tedious, and too academic to be of value in a workplace.
- Often, the person I first contacted was enthusiastic, but failed to convince his or her superior (often outside South Australia) of the value of the work.
- The “musical chairs” effect, in which I approached person A, who was unable to make a decision and passed the question on to person B, who passed it on to person C, who referred it back to person A, who was now working in a different position – and so on.
- “We are about to make major changes, so this is not a good time.”
- “We are not planning any changes, so this is not a good time.”
- “We’re so busy dealing with the present that we have no time to think about the future.”
- “This is a very small organization and we can’t spare the management time.”
- “This sort of work is done by our head office” – in Sydney / Canberra / USA / France.
- The organization agreed in principle, but never managed to find time for the workshops.

In addition to the above reasons, I detected in some cases almost a fear of the future: people who did not want to look beyond the current financial year, perhaps because they did not like the future that they dimly perceived, or a form of defensiveness that occurs when mental models are challenged (as noted by Friedman and Lipshitz, 1991).

Partial cases

As well as the fully participating cases in the sample, this study was informed by a set of what might be called partial cases. These involved types of organization and situation in which the process of scenario-building could not be fully explored, for reasons of time, language difficulties, lack of preparedness of an organization to participate, or client confidentiality. These included a manufacturing management group, lifelong learning in the city of Marion, the residential construction industry in South Australia, and a project for a manufacturer of lawn
mowers, which included investigating the future of lawn-mowing in Australia. In each of these cases, some elements of the Process were used, but none used the full Process.

One such opportunity arose with Smartlink, the Australian National Institute for Manufacturing Management, for which I was evaluating its seminar program and managing its website (www.smartlink.net.au). Smartlink, with only three full-time staff, but a 1.3 million dollar budget, was an example of an “imaginary organization” (Hedberg et al., 1997). It fulfilled its goals by funding other organizations, using a complex value chain. Though Smartlink’s director agreed in principle that I could use the organization as a case study, this did not proceed, as the organization was too small to enable any participative scenario-building. Nevertheless, some preliminary work helped in the initial development of the Process.

Despite these setbacks, seven cases were eventually located that did participate. The cases are summarized in the following table, which shows:

1. The sequence of cases studied.
2. A brief label, used to refer to the case.
3. A description of the type of entity involved with the case.
4. The number of main fieldwork sessions (not including any preliminary or follow-up meetings.) The figure for Iraq is zero because this case used secondary data.
5. The status of the case: whether it included the full Process, or only parts of it.
6. The number of participants involved; these were “official” participants, who turned up at least one workshop, but not necessarily all workshops. For case EM, this is the number of different people interviewed.

**TABLE 8.2 CASES USED IN THIS STUDY**

<table>
<thead>
<tr>
<th>Label</th>
<th>Description</th>
<th>Sessions</th>
<th>Status</th>
<th>Participants</th>
</tr>
</thead>
</table>
| RN    | A radio network in Indonesia             | 1        | Partial| 14  
| EM    | An engineering manufacturer             | 11       | Full   | 6            |
| Iraq  | The 2003 war in Iraq                     | 0        | Full   | 0            |
| LS    | An NGO providing legal services          | 4        | Full   | 14           |
| CU    | A credit union                           | 4        | Full   | 17           |
| SC    | A service club                           | 5        | Full   | 20           |
| Barossa| The Barossa Valley landscape             | 1        | Partial| 19           |

a. Officially there were 14, but at times up to 35 were present.
As noted in Chapter 7, each case was selected in order to highlight some potential problems with the Process being developed. Problems found with each case were reflected on; solutions were envisaged, and tested with the next appropriate case. The elements of the Process used therefore varied slightly from case to case, depending on the reflections from the previous case and the nature of the subsequent entity. The following table shows for each case whether the element was used in full, with time specifically assigned to it (shown as **), or covered as part of another session (shown as *), or not used at all with that case (shown as -).

**Table 8.3 Elements of method used with each case**

<table>
<thead>
<tr>
<th>Case...</th>
<th>1 RN</th>
<th>2 EM</th>
<th>3 Iraq</th>
<th>4 LS</th>
<th>5 CU</th>
<th>6 SC</th>
<th>7 Barossa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impinging systems</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>*</td>
</tr>
<tr>
<td>Leaf of goals</td>
<td>-</td>
<td>-</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>-</td>
</tr>
<tr>
<td>Futures wheel</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>-</td>
</tr>
<tr>
<td>Middcasting</td>
<td>**</td>
<td>**</td>
<td>*</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>-</td>
</tr>
<tr>
<td>Backcasting</td>
<td>**</td>
<td>*</td>
<td>-</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>-</td>
</tr>
<tr>
<td>Morphological scenario paths</td>
<td>**</td>
<td>**</td>
<td>*</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>-</td>
</tr>
<tr>
<td>Hemispherical layered model</td>
<td>-</td>
<td>-</td>
<td>**</td>
<td>-</td>
<td>**</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Envisioning preferred futures</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>*</td>
<td>-</td>
<td>*</td>
<td>**</td>
</tr>
</tbody>
</table>

**8.1.2 Outline of each case report in this chapter**

The bulk of this chapter summarizes the seven case studies. For each, the following information is presented:

1. Background to the case study
2. Reflections on the findings
3. Implications for the next case.

As noted above, Appendix 4 adds the following data for each case:

1. A more detailed description of the entity under study
2. Sampling considerations: how that entity fulfilled the sample design
3. The procedures used (environment, participants, and activities)
4. A brief summary of the output from that case.

This additional information can be viewed as falling between subsections 1 (background) and 2 (reflections on the findings) for each case in this chapter.
8.2 Pilot case: a radio network in Indonesia (RN)

Appendix 4 contains details of this case: on the entity studied, sampling classification, procedures used (recruitment, environment, activities), and output.

8.2.1 Background

The first attempt at creating a scenario network map was done as part of consulting work that I was conducting in mid-2001. This work (not formally part of the thesis project) enabled me to conduct a preliminary feasibility study. This was part of a Swedish aid program, the aim of which was to strengthen democracy in Indonesia by introducing the concept of public service broadcasting to a government-owned radio network (RN). My role was to train groups of RN staff in audience research, using that term in a very broad sense, including research into likely future audiences. One of these courses was held at the RN office in Pekan Baru, the capital of Riau province. The course syllabus involved a situation analysis, which involved helping RN staff to explore possible futures for RN in Riau, and I used this opportunity to make a preliminary trial of the scenario network process.

8.2.2 Reflections

Six main reflections arose from this study.

Reflection 1. Problems identifying stakeholder groups

The method used to identify stakeholder groups was in terms of enveloping systems, subsystems, and linked systems. This was difficult to convey to participants, and took much longer than anticipated. A different approach thus seemed to be indicated.

Reflection 2. Success with midcasting and event trees

It was clear that the most successful technique with these participants was midcasting. Perhaps due to their journalistic training, the participants readily grasped the concept of the event tree: defining a major turning point (almost a snapshot scenario, in some cases) then outlining the probable preconditions and consequences.

Reflection 3. Lack of success with backcasting

The backcasting was not completed. Though that group engaged in much discussion, it ran out of time to record its findings. The paths discussed seemed highly specific, referring to particular government ministers and other influential people. The group appeared to treat this as a CPM-like planning exercise, establishing a sequence necessary to achieve the final purpose.
(e.g. shutting down RN) without considering the broader ramifications and likely reactions: in other words, if causal diagrams had been created, they would have been simple chains, without branching.

**Reflection 4. Lack of success with futures wheel**

The futures wheel exercise produced disappointing results. Though this is one of the simplest futures techniques, and thus one of the most readily grasped, this one displayed a marked lack of detail. It seemed more difficult for the participants to imagine the near future (growing from the present) than it did for them to imagine more distant possibilities. Because I was using an interpreter, and Indonesians are reluctant to voice criticism (particularly to an authority figure such as a trainer) it was difficult to know why the futures wheel had not worked. One reason may have been that participants did not grasp the concepts of multiple pasts and multiple presents. This was perhaps because the group was too homogeneous. Since most of them had worked together at RN for years, they shared a single past and a single present. They seemed to be confused about creating futures wheels that began in the past. This may have reflected another aspect of Indonesian culture, which places a very high value on solidarity and authority in social settings. Alternatively, it may have been that the instructions, relayed through the interpreter, were unclear. Also, I sensed that many of the participants were trying to forget their past work environment, as being not useful in the new régime: their interest was centred on the future. On reflection, I realized that instructions for creating futures wheels would need to be much more explicit for later cases.

**Reflection 5. Participants avoided unpleasant possibilities**

In this first exercise in the participative development of futures, it became clear that participants were not keen to explore the more unpleasant possibilities. They did explore the consequences of selling RN stations, but those unpleasant consequences served the purpose of convincing participants that such a sale was not a good idea. However, if the central government did decide to sell a network or two, the desires of existing staff might not be much of a deterrent. I suspected that the time that this unwillingness to consider potential bad news might be a more Indonesian trait, and that it might not exist (or at least might not be so strong) in Australia.

Despite those problems, the general approach proved viable. Though the scenario network map was incomplete, due to time pressure, this was not unexpected. In particular, this first trial of midcasting was clearly viable: it caught the imaginations of the participants, and they
engaged in it keenly. The impinging-systems analysis divided such systems into three groups: enveloping systems, subsystems, and linked systems.

**Reflection 6. Similarity of morphological approach to standard scenario planning**

I realized that, despite my criticism of the Critical Uncertainties scenario method in preceding chapters, that morphological hierarchies are topologically similar to that method. However, the Critical Uncertainties method begins by considering dimensions of uncertainty, while the morphological model is a faceted one, based on categories rather than dimensions. The nearest approximation that the Critical Uncertainties method could have made to Figure A4.1.2 in Appendix 4 would have been to use two dimensions (public/private and one/many entities), producing up to four scenarios:

1. Public ownership of one entity
2. Public ownership of many entities
3. Private ownership of one entity
4. Private ownership of many entities.

Using the participative approach, a small group would have fleshed out each of the four dimensional combinations into a scenario, producing a description of how RN would fit into each scenario. In contrast, the scenario network method involved creating 13 small scenarios instead of four large ones, focusing not on vivid description of the endpoints, but on creating paths between the present and each of the 13 states. The vividness would be realized through narrative sequence, rather than detailed descriptions.

As normally applied, though, the Critical Uncertainties method would not have produced the above four scenarios, but a more macro-scale set covering Indonesian society as a whole. Two key dimensions were obvious: whether or not Indonesia would continue along its path to democracy, and the level of economic growth. Crossing these dimensions would have produced four scenarios:

1. High democracy, high economic growth
2. High democracy, low economic growth
3. Low democracy, high economic growth
4. Low democracy, low economic growth.

The focus would have been how RN would cope in each of the four scenarios, but that method would not normally have covered the ways in which RN might contribute to the scenarios. Following the normal Critical Uncertainties procedure, the next step would have
been to canvass RN's possible reactions to each of those four scenarios. The Critical Uncertainties method is passive in that (in the form described by Schwartz, 1991) the entity cannot affect the scenario outcomes.

However, the same criticism can be applied to the morphological set used in this case. That set of possibilities for RN focused on its organizational structure: certainly relevant to the staff and managers of the organization, but of little relevance to the audience. Since the overall goal of this project (in which my course played only a small part) was to enhance democracy in Indonesia, it would be reasonable to create a morphological set addressing that objective. I realized this only after this casework was completed, so it was too late to make another attempt with the same participants. These reflections led eventually to the development of the Leaf of Goals, as described in section 5.3.4 in Chapter 5.

### 8.2.3 Issues carried forward to the next case

The main purpose of this pilot case, carried out on a very limited scale, was to determine whether the construction of scenario networks was feasible, and what problems might be faced. The conclusion was strongly affirmative, though clearly much developmental work was required, particularly with the practical development of the futures wheel and backcasting. Two clear lessons were learned, one relating to the listing of stakeholders, and the other on the number of participants in a workshop.

**Need to develop a taxonomy of stakeholders**

Participants had difficulty with the division of stakeholders into subsystems, enveloping systems, and (particularly) linked systems; it seemed likely that some were omitted. Thus one task for the next case was to create a taxonomy of linked systems, which might also be thought of as stakeholder groups.

**Number of participants**

The optimum number of participants was clearly fewer than the 30-odd sometimes reached in this case; probably a lot less, around 15 – though much would depend on the size, shape, and characteristics of the workshop environment.
8.3 Case 2: An engineering manufacturer (EM)

8.3.1 Background
This was the first substantive case in the study - though initially I was hesitant to include it. Because the entity was a small business, it would not be possible to use the workshops called for by the Process design. However, the sample design called for the inclusion of an innovative business, and this one certainly qualified. Also, there were no other suitable cases on the horizon at the time, my fieldwork was behind schedule, and the chairman of this company was very keen to engage in scenario work. The clinching reason for accepting this case was that my original intention had been to develop a futures method that would work well on a small scale, and it was likely that this business was far from alone in being unable to spare staff for two days of workshops. I therefore decided to go ahead, if only to find out to what extent the Process would succeed without participative workshops.

8.3.2 Reflections

Reflection 1. Use of interviews instead of workshops
I had not expected the first substantive case in this study to depart so radically from the designed Process (i.e. by not using workshops) but as indicated above, there were good reasons for both accepting this case and departing from the plan. In particular, the use of interviews (with numbers of respondents varying between one and four, with not all respondents always present together) permitted the extension of the Process to a entity too small to hold workshops.

Reflection 2. Two entities in one
Another unexpected development was that what was intended to be a study of a single entity soon became a study of two entities: the main business of EM, and the development of the electric motor. The potential futures of the two turned out to be so different that it made little sense to look at their futures as a single entity – particularly in view of the fact that one option being considered was to sell the bulk of EM but keep the electric motor business.

Reflection 3. Increasingly-structured interviews
Books on in-depth interviewing and the case study method (such as Kvale, 1996; Stake, 1995; Yin, 1994) generally distinguish three types of interview: structured, semi-structured, and unstructured. Structured interviewing uses a detailed questionnaire, which the interviewer is expected to follow verbatim. Semi-structured interviewing uses an interview guide rather than
a questionnaire: a list of topics to be covered, rather than specific questions, with a less rigid emphasis on the sequence of topics. In unstructured interviewing, the interviewer has a clearly-recognized single line of inquiry, and for which a questionnaire is not used at all.

Cutting across the above categories is cognitive interviewing, which focuses on the retrieval of data from memory (Fisher and Geiselman, 1992; Jabine et al, 1984, Willis, 2004). This lies between structured and semi-structured interviewing in its approach to questioning, with an emphasis on probing responses.

I began by using the semi-structured method, but even in the first interview found it too restrictive. Because I was asking the two senior managers in a company to describe the background and nature of their organization, it was impossible to stop them from talking. The first question from me (“Could you tell me where your business is heading?”), produced a torrent of words that lasted for two hours, and they still had not exhausted the topic. I returned the following week for what was essentially a continuation of the same interview. On listening to the tapes I had recorded in the first interview, I realized that in fact the managers had already answered many of the other questions I had planned to ask about in the first interview, as well as some of the issues I had been intending to ask about in later interviews.

With that realization, from that point onward I conducted what could be labelled an “increasingly-structured” set of interviews, drawing questions from each interview to ask about in more detail the following week. With the later cases, I followed this procedure deliberately. The first interview generally involved a single question from me: “Tell me about this organization, and how it came to be where it is today.” For the following session I would return with some specific questions designed to fill the gaps in the previous session’s responses, as well as some new general questions. I generally began the second set of sessions (focusing on the present) by asking respondents to enumerate the key actors and stakeholder groups that influenced and were influenced by the organization I was dealing with. Having established a broad list of stakeholders, I then asked for more detail about each. In some cases it was only after I had listened to the day’s tapes that I realized that some data had been omitted, and I needed to ask further questions at the following session. Gradually, as my respondents passed on the main data of interest to me, they became less voluble and I began to ask more and more specific questions. I made several attempts to create a more formal, generic questionnaire, but in each case this was overwhelmed by a flood of particularities: questions that I would not initially have known that it made sense to ask, and which varied with each organization I worked with.
A search for some reference to such a procedure in the qualitative research literature found the nearest (though not exact) equivalent to be the “recursive interviewing” described by Minichiello et al (1995). This may be because few published studies (outside the ethnographic area) seem to have interviewed the same respondents repeatedly. In the classical ethnographic literature involving repeated interviews with the same people (such as Evans-Pritchard, 1940; Lewis, 1967; Lynd and Lynd, 1929; Mead, 1928/1963; Whyte, 1955) the data collection methods appear not to have been formal interviews, and none of these researchers set out to develop a “method.”

**Reflection 4. Extending midcasting through “weaving”**

Midcasting in its original version, as used in the RN pilot case, is a combination of two elements: (a) identifying potential surprises in the entity’s near future, and (b) elaborating these using event trees: conceptually identical to the “problem trees” used in the ZOPP method (COMIT, 1998). In the EM case, I realized it was possible to indefinitely extend event trees, providing a continuous context – unlike problem trees, which end with a “root cause” (Mizuno, 1988). An event tree begins with a central situation or event – current or potential. This is transformed into a tree by asking (1) what other situations would lead to this? and (2) what other situations would flow from this? (The tree metaphor is that one begins with a trunk; question 1 provides the roots, and question 2 the branches.)

The “weaving” process discovered in this case involves extending a problem tree by asking additional questions (see Appendix 4) that result in each of its elements forming the centre of another event tree. This destroys the tree metaphor by making a root or branch of one tree the trunk of another, but creates a powerful method of generating scenario network. Thus backcasting was not used in this case: it was almost superfluous.

**8.3.3 Issues carried forward to the next case**

The main issue to be carried forward was the potential for further development of the “weaving” approach. Neither of the other two reflections on this case was expected to have a bearing on later cases, except that since only five further case studies were planned, and since the main focus of the process was the use of participative workshops, no further cases would be undertaken with entities too small for workshops to be used.
8.4 Case 3: The 2003 war in Iraq

8.4.1 Background
This case was developed as a scenario network in early 2003, in order to demonstrate the Process to organizations interested in using it. As the possibility of war in Iraq was a major news story at the time, everybody understood many of the underlying issues. Presenting a scenario map of this familiar issue thus seemed a useful way of illustrating the output of the Process. When the long-foreshadowed war began, I realized that this example could become a real case in my research, and would complement the primary research, adding two main contributions: (a) a study of the uses of power, given that the US military was perhaps the world’s most powerful organization, and (b) the intentions of many of the actors involved were not clear, and stated intentions could not be relied on. Adding a secondary case study would fill some gaps in the sampling frame. Also, much documentation was becoming available, providing the secondary data required.

8.4.2 Reflections
Reflection on this scenario mapping exercise took place over two years, overlapping all the subsequent case studies. It proved highly productive in terms of developing the Process, revealing various new elements in the construction of scenario maps:

1. Establishing case boundaries and data selection.
2. Perceived motives of other actors as a factor in events.
3. The need to anticipate changes in actors.
4. Difficulties in deriving the lower three levels of the hemisphere.
5. The notion of emerging constructs.
6. The worth of constructing a full hemispherical model.

Reflection 1. Establishing case boundaries and data selection
Unlike all other cases in this study, the Iraq case (because it involved secondary data) did not have a central entity. Thus a central problem was defining the scope of the scenario map. A huge volume of writing was available on the war in Iraq, even before it began. Because there was some doubt about what was relevant, it seemed safer (bearing in mind the problems found with some scenarios for 2000, in Appendix 1) to risk defining the scope too broadly rather than too narrowly. The principle of “sweeping in” (developed by Churchman (1971), from the philosopher E A Singer) was thus adopted. However, if the definition becomes 

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(1) defining the scope a little more broadly than was first envisaged, and (2) willingness to redefine the scope during the study.

**Reflection 2. Perceived motives of other actors as a factor in events**

With the cases previously studied, the motives of external actors were not dominant in determining the future of the entity. In the case of EM, motives could safely be assumed to be purely financial, while for RN, actors’ motives were not explored in the workshop but were well known. In the Iraq case, motivations of the main actors were much less clear, and stated motives were sometimes not believed by other actors. Despite the USA’s announced initial intentions of eliminating Iraq’s Weapons of Mass Destruction without necessarily seeking régime change, the first of eight motives stated by the Secretary of State a few days after the invasion began was “to end the regime of Saddam Hussein....” (Rumsfeld, 2003). However, a public opinion survey in 20 countries (Pew Research Center, 2003) found that the commonest motive ascribed to the USA was that it could control Iraq’s oil.

**Reflection 3. The need to anticipate changes in actors**

When dealing with national policy, as in this case, a country may have internal divisions and differing opinions, but such divisions are not always made known publicly, or at least do not emerge until after some time. It was not apparent initially that there were divisions in the US administration on conduct of the war. Later it became clear that the State Department (under the Secretary of State, Colin Powell) was much more cautious than the Pentagon (led by the Secretary of Defense, Donald Rumsfeld). Later still it became clear that even within the Pentagon there were divisions (Fallows, 2004; Bazerman and Watkins, 2004), with one group supporting much larger military ground forces than the other. As the next 18 months passed, and it became increasingly obvious that the Iraq adventure was not an unalloyed success, more voices of dissent arose from the US defence establishment (such as a report of the US Defense Science Board, 2004).

This splintering of actor groups suggested that key transitions between event holons could be better understood by (1) applying the Stakeholder Star, and listing actor groups with direct or indirect interests (in this case, Israel was an example of the latter), (2) considering potential new actors, (3) reviewing likely reactions of each actor group to the transition, and (4) the pressures that each group was able to bring to bear on each other group. A related suggestion is (5) to question the unthinking use of synecdoche and metonymy (prevalent among journalists): broad terms such as “the Pentagon” and “the US” should be defined as specifically as possible; nor should personalization, such as “Saddam,” be taken for granted.
Reflection 4. Difficulties in deriving lower levels of the hemisphere

The original concept of the hemisphere of four levels, though envisaging each level as being derived from elements of the one above, did not include a detailed method for doing that. The original plan was akin to differentiation or the “method of differences” in the mathematical sense. In other words, level 2 (motives) would be derived from level 1 (events) by asking for each connected pair of events “How did event A influence event B?” It was expected that there would be fewer motives (in level 2) than events (in level 1), fewer values (in level 3) than motives, and fewer worldviews (in level 4) than values.

However, when this form of qualitative differentiation was tried – as for the first time with this case – there turned out to be more motives than events: the multi-cause axiom applied. The multi-effect axiom also applied: some motives influenced many events. Thus a relatively small number of motives could be derived. This involved decoupling the second level from the first. Figure 4.3 in chapter 4 was thus varied from this original (upper) shape to a revised (lower) shape, in which motives were represented by lines rather than boxes:

![Diagram](image)

**Figure 8.1  RECONCEPTUALIZATION OF THE SECOND (MOTIVES) LEVEL**

In other words: each actor has a number of motives, and each of those motives may be applied to a number of events influenced by that actor. In practice, diagrams such as the lower part of the above figure were too complex to be readable; the solution seemed to lie in software, but no suitable software was found.

Reflection 5. The notion of emerging constructs

On comparing the Impinging Systems diagram created in early 2003 (Figure A4.3.1) with the situation at the end of 2004, the group “Iraq’s Islamic neighbours” stood out as an uninformed construct. The situation had become clearer, and the Sunni neighbours (such as Saudi Arabia) were now distinguished from Shia neighbours (such as Iran). Those who had followed news reports of the conflict in Iraq had become better informed about this inter-Islamic

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distinction. By the end of 2004 the struggles in Iraq were clearly divided along ethnic and religious lines, with relative peace in the Kurdish north and the Shiite south, but much violence in the mainly-Sunni central region, including Baghdad. Over the same time, the construct “Weapons of Mass Destruction,” which had existed for decades but become widely used only in late 2002, began to fade in 2004, when no such weapons were found in Iraq.

Reflecting on these changes in language used, it became evident that a useful function of foresighting could be to anticipate a change in constructs used in discourse. This is comparable to the first stage of emerging issues analysis, as described by Molitor, 1993 (summarized by Lang, 1998). Molitor describes the first stage as “framing of the issues”, indicators for which are “leading ideas” and six related sources of issues. A leading idea is expressed in a sentence-like format, along the lines of “the idea that X might do Y”. But how do leading ideas originate: where do the constructs X and Y come from? The suggestion here is that constructs must emerge before issues about them can be generated. These are not necessarily “new to the world” constructs, but can be little-known constructs that become relevant at a certain point in history.

A literature search of futures databases revealed nothing on “emerging constructs analysis” or likely synonyms, including terms such as concepts and schemata. I contacted Sohail Inayatullah, one of the world’s leading experts in this area; he confirmed that this concept of “emerging constructs” was indeed new. Though such a method is clearly worth developing, it is beyond the scope of this thesis. It would be a separate social inquiry method, to be developed later, following the resolution of the empirical question on the extent to which (or circumstances in which) constructs precede issues. It would be informed by recent writings on issues framing, such as Luntz (2004) and Lakoff (2004).

Reflection 6. The doubtful worth of constructing a full hemispherical model
The construction of the second layer proved very time-consuming. In a workshop situation, the time taken would have been excessive; there was clearly a need to improve the process. The second layer comprised 95 distinct intentions, fuelled by 34 motives. Each of these motives was linked to one or more values in the third level. Creation of the third and fourth layers was straightforward enough, but not found helpful, perhaps due to the use of pre-existing taxonomies for the values and worldview layers.

2. Personal communication, 23 February 2005.
8.4.3 Issues carried forward to the next case

The method of constructing the third and fourth layers of the hemisphere needed to be reconsidered, but these first needed to be tested in the designed situation of participative workshops. As the next case (legal services) was taking place while the layering method was being developed for the Iraq case, it was not until the subsequent case (the credit union) that the participative construction of layers could be attempted.

The idea of creating a method that might be called Emerging Constructs Analysis is certainly worth pursuing, but was put aside as a later task: developing one method was quite enough for this thesis.
8.5  Case 4: A community legal services group (LS)

8.5.1  Background

Like the RN project, this was another case of consultancy work, rather than pure research. LS was a non-government organization that provided legal services for indigenous people in South Australia. This was the first case that I had not sought out – in fact, I had not known of its existence. The Board of LS, faced with pressing problems, had asked a colleague of mine to organize a program of change management. However he had just been appointed to a position in a distant city, and was unable to oblige. Knowing of my thesis work, he suggested that I take over this project.

From LS’s point of view, the work had a clear objective: to help design a way of changing the governance structure, which would result in many of its board members effectively voting themselves out of a job. Though this project fitted well with the development of the Process this was consultancy work rather than pure research, so the client’s needs were foremost.

After an initial meeting with the senior management of LS, it seemed that this was a suitable case for the application of SNM. Following discussions, the management agreed that I could use SNM, making this case part of the development process. The managers warned me that the organization had a history of conflict between stakeholder groups, and in view of that record, there was a high probability that any participative process would fail due to disruption. However, a non-participative approach would probably fail due to non-acceptance by board members; it would be seen as a power play by managers.

8.5.2  Reflections

In terms of the consulting assignment (persuading the organization’s board of the need to revise the constitution and reform itself) this project was a clear success. The facilitators and myself received some glowing tributes, stating that we had succeeded in a task which had originally been thought all but impossible.

However, in terms of development of the Process, this case study was not much of a success at all. This was partly because, with the first workshop effectively wasted through interpersonal conflict, there was insufficient time to explore potential futures, nor was time available to extend the workshop series at the end – partly because I was due in Europe to work on another consulting project, and partly because of the tight time-frame for LS to change its constitution.
Nevertheless, this case study revealed four new elements and possibilities for improvement:

1. Realization that preliminary work was part of the Process
2. Reaffirmation of the relevance of the past in anticipating the future.
3. Realization that futures work could be effective with a short time horizon.
4. A new element was added to the Stakeholder Star

Reflection 1. Preliminary work also is part of the Process

Though this was the fourth case study, it was the first to use the workshop process as envis-aged in the original plan for the Process. (The RN study was a partial pilot study, the EM study was all done through interviews, and the Iraq war study used secondary data.) Thus it was only with this case, after a protracted series of preparatory meetings (rather than the single meeting in the Process design) that I realized that one preparatory meeting would probably never be enough. There were too many people who needed an explanation of the Process before the practical planning could begin. In this case there were five preliminary small-group meetings (with between 2 and 10 people), as well as post-mortem meetings after each of the four workshops. In fact, more time was spent in these meetings (around 15 hours in total) than in the workshops (13 hours).

Reflection 2. Reaffirmation of the relevance of the past in anticipating the future

One comment on follow-up was that “you need to report that aboriginal people stated very specifically that the investigation of the past in workshops 1 and 2 was an irrelevant waste of time, because everybody knew it so well.” In fact, the past was investigated only in workshop 1. Several participants commented on reviewing the “prouds and sorries” timechart that most of the “prouds” were not recent, and related to the work of the staff, while most of the “sorries” were recent (in the last 3-5 years) and related to the board and the broader political agenda. This realization probably contributed to the determination of participants in later workshops to find a solution to the current problems of LS and rebuild its earlier values.

Reflection 3. Realization that futures work could be effective with a short time horizon

There was one aspect of this case which did not fit at all well with SNM, which was designed as a futures process, looking some years ahead. The intended timescale for LS was around three months, given that the government funding body was scheduled to invite tenders late in 2003, and that LS as it was currently constituted would not be eligible to bid for the tenders, and thus would receive no more funding. With the three-month time horizon, this at first seemed to be hardly futures work at all. But nor was it normal planning, because the intention was that the scenario map and other findings would be used to demonstrate to all involved the
necessity for board reform. On reflection, there was no component of SNM that required a minimum time horizon of several years; this had simply been my unexamined assumption.

**Reflection 4. A new element was added to the Stakeholder Star**

The original Stakeholder Star diagram, as shown in chapter 5 (section 5.3.1) had seven stakeholder groups (suppliers, customers, competitors, regulators, staff, neighbours, and media). This case, perhaps because LS was an NGO, found various stakeholders that did not fit any of the seven categories. One adjustment was made by broadening the “competitors” group into “peers”. LS had few competitors for its clients (who could generally not afford lawyers), but it exchanged information with counterparts in other states, and had several peer organizations locally – such as the medical services NGO at whose offices the workshops were held. Even on extending “competitors” to “peers,” some types of stakeholder did not fit the seven categories. The 7-pointed star diagram had the focal entity at its centre, indicating that it communicated with seven categories of actor – but the star could be extended outwards, to show communications between the primary actors and others with whom the focal entity communicated indirectly. An example of such indirect influence is the general public, in the role of media audiences. LS has no direct link to media audiences, but if a television program were to criticize LS in a way that made audiences react strongly, audience pressures might then result in the government might creating regulations that directly affected LS.

The following diagram represents one sector of the Stakeholder Star, with the focal entity of LS to the left and its regulators to the right. The heavier arrows indicate sources of funding-related power. Lines that are not arrows simply indicate a high level of communication.

![Stakeholder Star Diagram for LS](image-url)

**Figure 8.2 The Regulatory sector of the Stakeholder Star for LS**
This case made it evident that as well as the outer indirect level (media audiences, in the above example) there could also be inner intermediaries. This applied to most of the seven actor groups. For example, labour unions (important for LS) did not fit any of the seven groups, but formed a conduit between the entity and its staff. Other intermediaries included industry associations (in their role of dealing with regulators) and welfare agencies, linking the entity to potential clients. Rather than double the number of stakeholder categories, the solution adopted was to regard each as being contactable either directly, or through such intermediaries.

As the purpose of the Stakeholder Star is to help avoid overlooking any important stakeholders, the prompt sheet for listing stakeholders was revised to this format:

<table>
<thead>
<tr>
<th>Group</th>
<th>Direct</th>
<th>Intermediaries</th>
<th>Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suppliers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighbours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 8.5.3 Issues carried forward to the next case

The main contributions of this case to improvement of the process was the enlarged view of stakeholders: in particular, the impact that intermediary stakeholders could have. The recognition that much important work was going to take place in preliminary meetings did not have any practical implication, except to recognize that it was probably not going to be possible to set up workshops at short notice, following an agreement in principle. The distinction between internal and external scenarios, though a useful one in this case, was not seen to need any further general application, as it was already covered by the holonic principle: that all the internal scenarios could be regarded as components of a single holon, labelled something like “reform.”
8.6 Case 5: A credit union (CU)

8.6.1 Background
This entity was a bank-like organization, a large credit union (CU). Having reached its previous objectives in terms of corporate size, becoming one of Australia’s largest credit unions, and having now reached a turning point, CU was interested in considering its possible futures. This was driven by the CEO, who had a history of trying new management techniques, as well as being a strong supporter of strategic planning. My liaison was mainly with the planning manager, who was also interested in my method. This was the only entity in this project that had previously engaged in futures work: it had participated in a scenario planning exercise done two years earlier (McAllum and Fowler, 2001) for an association of credit unions in Australia, informed by a US study by Randall, Schoemaker and Schuurmans (1999).

CU, after a sustained period of rapid growth, had grown more slowly in the past few years, and its board decided that this was a good time to take stock of its growth and to plan its way ahead. A major strategic planning review was scheduled for late November 2003, and this case study was to form an input for that review.

The scope of this exercise was to be “the future of retail financial services in South Australia and the Northern Territory over the next ten to fifteen years.” The industry, retail financial services, was deliberately chosen to be broader than the credit union industry, because CU was moving into other aspects of retail financial services (“RFS”). The geographical scope, South Australian and the Northern Territory, was the main area in which the credit union operated (though, as I later discovered it also had recently established outposts in three other states). The timescale, “10 to 15 years” was deliberately non-specific: even if it were possible to anticipate events more than a few years ahead, it was not regarded as possible to accurately specify particular years.

A unique aspect of this case was that it was not feasible to organize one series of workshops at which all participants were present. Instead, two parallel sets of workshops were run, with different participants. Because some participants had to fly from interstate, two full-day workshops were undertaken, instead of the four half-day workshops normally used in SNM. Both sets of workshops were small, with only 11 people in the first, and 8 in the second.
8.6.2 Reflections

The CU case produced a wide range of reflections:

1. Two days was not enough.
2. Lack of overlap in the two studies.
3. The value of using common software.
4. Dividing a scenario map into holons was feasible.
5. The need to write full sentences in the statements, rather than cryptic phrases.
6. The need to produce separate written instructions for each breakout session.
7. More actor types should have participated.
8. Problems with the third ("values") layer of the hemisphere
9. Invisibility of the fourth ("worldview") layer of the hemisphere.

Reflection 1. Two days was not enough

By late in the second day, for each of the two studies, it was clear that there would be no time for producing the four layers. Even though in the second study I tried to accelerate the first half (focusing on the past and the present) this still did not produce enough time at the end – particularly as many participants wanted to leave early, to catch their flights home or check their offices at the end of the day.

Reflection 2. Lack of overlap in the two studies

This case was unique in having two parallel studies. It would be expected that scenario maps produced by both groups would be very similar, because:

- both groups had about the same numbers and types of participants
- both took place in the same environment and used the same procedures
- both had the same facilitator (myself)
- they took place only a week apart, with no significant events occurring in the interim.

As it turned out, there was surprisingly little overlap between the two sets of maps:

<table>
<thead>
<tr>
<th>Holon type</th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Not shared: past or present</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>Not shared: future</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
<td>49</td>
</tr>
</tbody>
</table>
Thus 78 different holons were identified, of which only 8 were common to both studies. Even for the 30 holons that had already occurred, or were still occurring, there was little overlap: only two were mentioned by both groups. For the other 28 past or present holons (all of which were valid) only one set of participants mentioned them. The most plausible reason for this difference was that the groups were too small and too homogeneous. The holons were developed in small-group sessions, with only three groups in each case study, so in some ways the effective sample sizes were not 11 and 8, but 3 and 3. The lack of diversity within the breakout groups may have encouraged “groupthink” (Janis, 1972).

Reflection 3. The advisability of using common software

Up to this point, a wide variety of different software had been tried for drawing the scenario networks, including CMap Tools, Spidermap, and Inspiration. Though Decision Explorer might have been best of all, the budget excluded it, and its underlying model (being less flexible than the above software) did not quite fit with SNM. Inspiration, though limited in functionality, proved to be in many ways the most suitable, and was certainly quick and easy to use. However the large diagrams it produced could not be read by participants, none of whom in the previous cases had access to this software. Therefore in the CU studies I experimented with producing scenario maps using widely available office software. For the first CU study I devised a method of creating scenario maps using the spreadsheet Excel, to which almost all participants in almost all entities had access. This was an entirely different application of Excel from normal: diagrams, rather than the calculations customary in spreadsheets. The main limitation, compared with the graphics software tried previously, was that each worksheet had to use a regular grid, which sometimes made it difficult to squeeze enough elements onto a single page. On the other hand, the grid also made it easy to later insert new elements.

The second CU study used the presentation software Powerpoint – which, though it is mostly used to create small “slides,” also has the ability to produce poster-size presentations. However, transcription took much longer than with Excel, hyperlinking was less flexible, and the software crashed repeatedly with this unintended use. Spreadsheet software was clearly superior, and using it also enabled participants to modify scenario maps, without their having to acquire and learn to use separate software. Thus the use of spreadsheets helped empower participants to revitalize their entity’s futures.

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3. These software packages, along with several others of the same type, are discussed on my web page at www.audience dialogue.org/soft-visu.html; links are frequently updated.
Reflection 4. Dividing a scenario map into holons was feasible

Prior to the second CU study, large sheets of paper (from a 1-metre wide roll) had been used for the scenario maps. These turned out to be difficult to transcribe after removal from the wall, because of their sheer size, when entered into a computer in a small office. The first CU study created 37 main holons, from 267 minor holons (each of which could have been developed into a separate scenario). Not only was transcription a major problem, so was understanding the maps, because of the long arrows connecting the 267 elements. A similar problem in the case of consensus groups had been solved by using many small sheets of paper (one sheet per statement) instead of a few very large sheets. This was an adaptation of the cards used in various ways in Metaplan (Schnelle, 1979), VIPP (UNICEF, 1993) and ZOPP (COMIT, 1998), and the hexagons used in some futures work (Hodgson, 1992). With consensus groups, multiple sheets allow a more flexible display, being easily reordered and replaced.

Accordingly for the second CU study the display wall was tiled with small sheets. (Figure A4.5.1 in Appendix 4 is a photograph of this.) Each sheet represented a separate cluster – such as one event tree, in midcasting. To enable one cluster, with up to about 10 adhesive notes (each 7.6cm square) to fit onto a single sheet, A3 paper (30 by 42cm) was the most suitable size. For the few clusters with more elements than that, two adjoining A3 sheets could be used. Another advantage of multiple sheets was that colour coding could be used, reflecting the exercise in which the cluster had been generated.

Previously, arrows denoting influence had been drawn between separate elements of the scenario map – which made the map hard to read when several “causes” were identified as having long-delayed effects, resulting in overlapping arrows snaking for many metres. Using coloured knitting wool instead of arrows (in the LS case) made maps more legible when arrows were redrawn, but the result was still difficult to grasp. Using separate sheets for each holon enabled arrows to link entire holons rather than individual points. Each sheet could now be numbered before removal from the wall, and the numbers of those linked sheets recorded on both sending and receiving sheets. When the finished diagram was transferred to a computer file, the arrows could be replaced by hyperlinks between worksheets.

Though the second CU study created more data than the first (49 major holons, combining 430 minor ones), reducing the output to 49 sheets of A3 paper (rather than 267 separate items) simplified both transcription and interpretation. Comparing the two matched CU studies, no useful information was lost by coarsening the scale of links – now connecting event trees rather than individual elements.
Reflection 5. The need to write full sentences in the statements

Some of the statements were so short (one or two words) that their meaning was unclear, both to myself and to some others present. Though cryptic utterances save time and space, they can also serve as an in-group statement that discourages external dissection. For that reason, it is preferable to make statements into complete sentence. Three words is often enough: subject, verb, and object. Such a sentence, even when written even on small adhesive notes, can still be readable from the other side of the room – which is important for enabling viewing of the scenario map as a whole.

Reflection 6. The need for separate written instructions for each breakout session

Verbal instructions, though simple and brief, were sometimes misunderstood and/or forgotten within the breakout groups. Thus it seemed useful to create sheets with instructions for each session. Only a few sentences are needed, and even if the schedule were varied on the spot, it would be possible to write such instructions by hand and photocopy them.

Reflection 7. More actor types should have participated

This case made it clear that excluding some types of stakeholder limited the scope of imaginable futures. It was evident to me (though not apparently to most participants) that the scenario maps produced in these two exercises were largely from the point of view of management – not the customers, nor even the junior staff, let alone the competitors, the credit union sub-industry, and the South Australian retail financial services industry as a whole.

Reflection 8. Problems with the Values layer of the hemisphere

The subgroup that worked on the Layer 3 of the hemisphere had problems generating useful values from the motives in Layer 2. The Iraq case so far had been the only one for which a set of layers had been constructed; it had used the standard set of values based on Schwartz (1994), and that had not proved useful. Thus the CU participants were not given Schwartz’s value list, but were left to develop specific values based on the specific motives. However, this revised approach was no more help in anticipating changes in actors’ motives than when Schwartz’s list of values was used.

The lowest layer therefore needed to be rethought. As “values” was only a convenient label for ideas that changed approximately once a decade, the principle of the layered hemisphere could be retained by either abandoning the third layer, or rethinking its central concept. A solution was found following the next case study, and is reported in section 8.7.2 below.
Reflection 9. Invisibility of the lowest layer of the hemisphere

When the CU participants tried to create a set of hemispherical layers, they used the top-level scenario map of events to create a second layer of motives, and from that created a third layer of values. They were unable to create a layer of worldviews. As this was the first case study in which participants created a set of layers, it seemed at first that the four-layer categorization was too detailed. On reflection, the reason for the lack of a fourth layer became obvious: with the restricted range of actors who took part in the case study, the fourth layer (worldviews, culture, and the like) was invisible to them – a vindication of the hemisphere theory. McLuhan’s aphorism applies: “Fish don’t know water exists till beached” (McLuhan, 1970, p191).

8.6.3 Issues carried forward to the next case

Based on the above reflections, the key lessons from this case to be applied to the next case were...

- To continue with the grouping of scenario maps in holon-based units. The method of generating items on sticky notes and arranging these on large sheets of paper worked well, allowing changes without extensive redrawing.
- The vital importance of including a wide range of stakeholders.
- Half-day sessions are preferable to full-day sessions.
- The need to rethink the construction of the “values” layer of the hemisphere.
- Spreadsheet software proved most suitable for generating scenario maps – not because it could generate diagrams more easily than concept-mapping software, but because (a) it minimally served the purpose, and (b) almost everybody involved could access it – and thus had the power to modify the diagrams rather than only read them.

None of the above represents a radical change from previously. This indicated that the mechanics of the Process were now working well, perhaps needing little further development. The case studies could almost have stopped at this point, except that the sampling frame was incomplete; it was possible that one of the kinds of entity not so far studied might produce some new insights. But as the following case study demonstrates, the sense of sampling redundancy attained at the end of this case study was well and truly shattered by the next case.
8.7 Case 6: A group of service clubs (SC)

8.7.1 Background
SC is an international group of service clubs, with clubs grouped into “districts” averaging around 50 clubs each. In early 2004 I was approached by the governor-elect of a district covering the north of South Australia. She was concerned at the slow decline in membership of SC since the 1980s; she was hopeful that a scenario planning exercise would both reveal to participants the consequences of this decline continuing, and hopefully reveal some paths forward. As the governor of the adjoining district, covering the southern part of South Australia) was also very interested in this project, the case study became a joint exercise between the two districts. The fact that this was the first ever such joint project underscores the independence of the clubs and districts.

The full Process was used in this case, but a fifth workshop was added to explore visions of multiple futures.

8.7.2 Reflections
This case revealed the following new insights about the Process:
1. The practical use of multiple futures
2. Comparison table of scenario paths.
3. Problems of managing this type of group
4. Possibility of combining first two workshops
5. Regressing in the development of a methodology
6. The desire for normative futures.
7. Redefining the third layer of the hemisphere.

Reflection 1. The practical use of multiple futures
One of the key principles of futures studies is that of alternative futures: that as we cannot predict “the” future, we should prepare for a range of alternatives. The conceptual framework in chapter 4 above (first presented in 2001, before fieldwork began) proposed a variation of alternative futures: multiple futures. Whereas the concept of alternative futures can be expressed as “Our future could be this, or this, or this,” the concept of multiple futures is that “Our futures could be this, and this, and this.” However because of the nature of the case studies done until this point, and the restricted range of participants involved in each case study, no clear example of multiple futures was found.
In this case study, because SC is so decentralized, yet all clubs share a common purpose, the deliberate use of multiple futures became a clear solution to SC’s problem of declining membership. Using the Leaf of Goals, all clubs could still aim at their shared goals while exploring different paths towards them. If after a few years it becomes clear that one path is unproductive, a club on that path can learn from the experience of others to vary that path.

**Reflection 2. Comparison table of scenario paths**

A simple but informative method of comparing scenario paths, developed for this case but with much broader applicability, is to create a list of variables on which possible futures could differ, and to compare each scenario on those variables. This serves two purposes:

(a) enabling a clearer and more comprehensive comparison between scenario paths;

(b) helping to ensure that no major variables are omitted

In this case, 28 variables were identified. Though there is no certainty that they are comprehensive, the fact that they were based on the output from workshops and were reviewed several times offers some assurance that there are no major omissions. However, it is possible that the most relevant variables in 10 or 20 years’ time will turn out to be not on the list of 28 (even though they are probably known now) because they seemed too obvious. Thus it would be worthwhile to have an early workshop session in which all participants try to identify key variables on which aspects of the future might differ. This is similar to the Critical Uncertainties method, as described by Schwartz (1991), but in seeking exhaustiveness, it is more of a morphological approach.

**Reflection 3. Problems of managing this type of group**

This was a difficult group to manage. Participants had seldom met before on this cross-club basis, and had a lot in common. Naturally they wanted to discuss club-related issues, and some were more interested in those than in the SNM exercise. Breakout groups sometimes did not complete their allotted tasks, and there were several long interruptions. This reflection concerns avoiding such interruptions: whether it would have been desirable to exert much firmer facilitation to ensure that the timetable is adhered to – which in turn raises the question of which is primary: the process or the client’s needs. (The question could also be recast as an issue of long-term needs versus short-term needs, with attendant probabilities in each case.) There can be no generic solution; this must always be a matter of judgement, which must be made on the spot. No time is available to reconsider. In retrospect, in this case, a suitable option would have been to use one or more assistant facilitators (as in the LS case), to help participants come to grips with small-group tasks.
Reflection 4. Whether to combine the “past” and “present” workshops
Some participants commented on the slow pace of the first two workshops (on the entity’s past and present). As some of the detail gathered in those workshops was not later used, it seemed worthwhile to experiment with combining those two workshops, to enable more focus on futures. This had been done in the second workshop in the LS case study (as an ad hoc measure, following delays in the first workshop), and caused no apparent problems.

Reflection 5. Regressing in the development of a methodology
This element applies to the development process, rather than this specific case. With each previous case, some problems had been found, with solutions then proposed and applied to the subsequent case. As originally expected, the Process was gradually improved. Thus this case came as a surprise, particularly the failure to produce a coherent scenario network map. On reflection, this failure was due to three main components: the expectations of participants, the physical environment for the workshops, and the unusual lack of restrictions on possibilities for the organization. Having previously done five case studies, four of which (all but the CU case) were broadly successful, it came as a surprise that so late in the development, an unsuccessful study should emerge. This suggested that perhaps a much larger sample of cases was needed before redundancy (in the sense of Lincoln and Guba, 1985) could be reached. However, the lack of success was only from the developmental point of view. Many participants, judging from their evaluative comments, regarded the series of workshops as a clear success. The follow-up confirmed this view, in that some clubs (from which participants had come) were energetically undertaking the reforms developed in the workshops.

Reflection 6. Participants’ desire for normative futures
With this case study, I could no longer avoid acknowledging that it was not feasible to set aside participants’ desire for improvement. The position until this point had been that the Process was one of social inquiry (in Dewey’s sense), not a planning method. However, participants in most previous cases had initially expected that the Process would help them attain desired futures. I had told them at the beginning of each workshop that this was not designed to be a planning process, and that it should logically be followed by a planning exercise in which they considered the possible futures that this Process had revealed. They could then create a plan taking those possible futures into account. In the SC case, even though some clubs already had strategic plans, this demand was very strong indeed. This was clearly in opposition to the literature-derived Criterion E5 (chapter 3) that each scenario should be dealt with even-handedly, with no preference given to one or another. The ad hoc
approach of adding a fifth workshop to consider desired futures largely resolved this dilemma: after four previous even-handed workshops, likely futures had already been considered.

**Reflection 7. Redefining the third layer of the hemisphere**

In this case study it was not possible to create a layered hemisphere as envisaged in the design of the Process, because the event-level scenario map was not completed. Defining the third layer in terms of values had not worked well either in the Iraq case (when a list of Schwartz’s basic values was used) or the CU case (when participants ascribed specific values to actors). On reviewing the SC case and its participants’ desires for normative futures, a solution became evident: the third layer would be redefined as one of visions, hopes, wishes, and the like (but not expectations) – combined under the umbrella of Visions.

The revised relationship of layers is that events (layer 1) are driven by motives (layer 2), which are driven by visions (layer 3). Forced changes in each layer can impel changes in the adjacent layer/s. This solution was plausible, it met the criteria outlined above, and it had the additional advantage that visions are by their nature more observable than are values, and can thus be more easily ascribed for stakeholders not participating in a study. To assess the feasibility of using visions instead of values, I reworked the third layer of the Iraq case, and found that, on balance, this produced a more tightly-linked chain of influences. The difference between this and standard corporate “visioning” is that the latter uses only self-centred visions: an organization’s vision for itself - but the visions in the third layer of the hemispherical model are those that each actor has for each other actor.

**8.7.3 Issues carried forward to the next case**

Three issues remained for further study:

- To investigate the feasibility of empirically gathering (without artificially creating) visions to create the third layer of the hemisphere.
- To discover whether planning for an avowedly normative approach in the final workshop would affect the even-handedness possible in earlier workshops.
- To experiment with combining the “past” and “present” workshops, so that even if normative futures were covered in the final workshop the total number of workshops could remain at four.

The final case study was able to address both of these issues to a large extent, even though (once again) some modifications to the Process were required.
8.8 Case 7: The Barossa Valley landscape

8.8.1 Background

Since the sample design included a case study in primary industry, I had originally sought a case in the wine industry, because it is so significant in South Australia, and it must also plan well ahead. My initial soundings were unsuccessful, but later I was approached by one of Australia’s largest wine companies, which was interested in carrying out some scenario planning. As it turned out, the company was not ready in time for its study to be included in this thesis, but its senior technical manager mentioned an associated project that would also require futures input: studying the future of the Barossa Valley from a point of view of sustainability of the landscape. This was not due to begin till 2005, and in any case was dependent on the success of an application for a large research grant. If that grant was won, the latter project would go ahead, and I would be involved with the scenario planning and/or other futures work. But in case the major grant was not secured, a contingency plan was to redesign the project on a smaller scale, and to seek funding from another source, for futures work only.

On behalf of the Barossa Winemakers Association, I accordingly made a grant application to the Grape and Wine Research and Development Corporation (an Australian commonwealth government agency) for a pilot workshop in which visions of the various stakeholders for the Barossa Valley’s future would be identified and compared. This proposal was successful. We were awarded a Regional Innovation and Technology Adoption grant, and a workshop was accordingly organized. The only parallel to this workshop in any earlier case was the additional fifth workshop for the service clubs. The method being explored here was intended to supplement, rather than replace, the other aspects of the Process.

A key uncertainty for the larger Barossa project was to what extent any desires for the future of the Barossa landscape were shared between different stakeholder groups: winemakers, other business owners, workers in the Barossa, residents, administrators, and visitors. To the extent that different groups held different hopes for the Valley, this could create difficulties for planning. But to the extent that a clear pre-existing vision was shared, planning could go ahead to fulfil that vision, so that Valley stakeholders could become “protagonists of their own future and sustainable development,” in the sense described (for developing countries) by Max-Neef (1991).
Since the SC case had suggested using visions (in the broadest sense) to replace values in Layer 3 of the hemisphere, and had also emphasized participants’ strong desires for normative futures, this was a suitable opportunity to develop an envisioning process as part of the toolkit of components for the Process. A seminar paper I had produced following the SC case study reviewed envisioning processes, finding that so-called vision statements were in many cases so non-specific that the term “vision” could not accurately be applied to them. This, then, was an opportunity to find a way of developing visions that were more visible.

8.8.2 Reflections

Three main reflections flowed directly from this study: whether the Process elicited or generated visions, the possibility that the exercise created artificial agreement, and the representativeness of the participants.

Reflection 1. Eliciting vs generating visions
The specific intention of the workshop was to determine to what extent visions were shared among different stakeholder groups. To that extent, results were very clear, with no consistent disagreement revealed. However, simply by having people think about their visions of the Barossa for a full day, visions were not simply elicited, but further developed and reinforced. However there is a fine balance between eliciting and generating visions, and one danger of focusing too much on the latter is that a vision developed by participants can be taken as representing the entire population from which they were drawn.

Reflection 2. Perhaps the Process created an artificial level of agreement
On further reflection, this type of median-group workshop (20-odd participants) may not have been the ideal environment for eliciting visions. It may have been possible to elicit more vivid visions with a series of much smaller groups. This could have been done using a separate workshop with each main stakeholder group: residents, workers, winemakers, and officials. This would restrict the role-switching used advantageously in the present workshop, but perhaps it was that role-switching that helped contribute to the high level of agreement among participants. If so, because it was an artefact of the Process, it might not be reflected in the remainder of the population.

Reflection 3. Doubts about the representativeness of the participants
Some groups were not represented at this workshop, particularly ordinary residents and owners of businesses other than wineries. There were two reasons for this: a restricted range of people specifically invited, and the fact that the workshop took most of a working day,
which many potential participants would not have been able or willing to spare. In particular, the lack of young people was a concern. They are the ones who will have to live in the future Barossa landscape, and only a handful of the 20 participants were aged under 30.

### 8.8.3 Issues to carry forward to the next study

Though this was the final case study, the development of the Process cannot be regarded as quite complete; thus it makes sense to review issues to be carried forward to a later study. Two such issues arose from the Barossa case:

- To decide whether an exercise of this type (which could be fitted into one half-day session) should be included as a component in the standard Process, and if so, where in the sequence it should be.

- In any study of a geographic community, any half-day workshop is likely to exclude a wide range of those interested. A possible solution would be to use a method similar to the charrette (Lennertz, 1999). This method, which could be labelled “rolling groups,” involves using a place frequented by many pedestrians, and inviting a stream of them to inspect displays, add their contributions, and offer their comments. At the time of writing, this was being planned as a follow-up to the Barossa study, but too late to be included in this thesis. Another planned follow-up is to repeat most of the workshop in secondary schools, with students as participants.
8.9 Review of this chapter

At the conclusion of the scheduled fieldwork (the pilot case, and six main cases) a decision needed to be made on whether further cases should be added. Though the Process was clearly not developed to its fullest extent, it was by now evident (following the reversal in the SC case) that it was not possible to determine how many additional cases would be needed, and that there was no certainty that adding a few more cases would resolve all remaining issues. Also, after compiling Table 8.6 (below) it was clear that none of the remaining issues was crucial to the Process. As an original goal of the thesis had been to produce a well-informed handbook for the Process, and ample information was now available, it was therefore decided to adhere to the original plan and conclude the fieldwork at this point.

8.9.1 Issues still to be resolved

The remaining issues are as follows, with tentative solutions to be tested.

<table>
<thead>
<tr>
<th>Case</th>
<th>Issue</th>
<th>Tentative solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN radio network</td>
<td>none remaining</td>
<td></td>
</tr>
<tr>
<td>EM engineering manufacturer</td>
<td>none remaining</td>
<td></td>
</tr>
<tr>
<td>Iraq war</td>
<td>Develop a method for Emerging Constructs Analysis</td>
<td>Do this as a separate post-thesis project</td>
</tr>
<tr>
<td>LS legal services</td>
<td>none remaining</td>
<td></td>
</tr>
<tr>
<td>SC service club</td>
<td>Slow pace of “Past” and “Present” workshops</td>
<td>Combine these two workshops in future</td>
</tr>
<tr>
<td></td>
<td>Inclusion of normative element in main Process</td>
<td>Address normative issues in the final workshop</td>
</tr>
<tr>
<td></td>
<td>Replace Values with Visions in 3rd layer of hemisphere</td>
<td>Try this approach in Barossa follow-up exercise</td>
</tr>
<tr>
<td>Barossa Valley</td>
<td>Include visioning in main Process?</td>
<td>Move away from fixed elements and sequence</td>
</tr>
<tr>
<td></td>
<td>Value of “rolling groups”</td>
<td>Try this approach in Barossa follow-up</td>
</tr>
</tbody>
</table>
For comparison, the following table shows the changes already made as a result of each case study.

**TABLE 8.7  CHANGES MADE TO THE ORIGINAL PROCESS**

<table>
<thead>
<tr>
<th>Case</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN</td>
<td>Use the Event Tree approach in midcasting.</td>
</tr>
<tr>
<td>radio network</td>
<td>Avoid too internally-focused a morphological hierarchy.</td>
</tr>
<tr>
<td>EM</td>
<td>+Workshops can be replaced by multiple interviews, but more time is taken.</td>
</tr>
<tr>
<td>engineering manufacturer</td>
<td>Use of star-shaped pattern for envisaging all stakeholders.</td>
</tr>
<tr>
<td></td>
<td>“Weaving” method for developing context around surprises.</td>
</tr>
<tr>
<td>Iraq war</td>
<td>Importance of defining case boundaries: if in doubt, broader rather than narrower.</td>
</tr>
<tr>
<td></td>
<td>Use open-ended rather than multiple-choice options for developing lower layers of the hemisphere.</td>
</tr>
<tr>
<td></td>
<td>Further development of the Leaf of Goals.</td>
</tr>
<tr>
<td>LS</td>
<td>Likelihood of additional preliminary meetings and follow-up meetings.</td>
</tr>
<tr>
<td>legal services</td>
<td>Addition of intermediary stakeholders to the Stakeholder Star.</td>
</tr>
<tr>
<td></td>
<td>Use coloured string (or similar) instead of hand-written arrows for linking holons on scenario map.</td>
</tr>
<tr>
<td>CU</td>
<td>For ease of transcription and interpretation, record each major holon on one sheet of paper, around A3 size.</td>
</tr>
<tr>
<td>credit union</td>
<td>Spreadsheets are the best software for producing scenario maps.</td>
</tr>
<tr>
<td></td>
<td>Rethink lower layers of hemisphere, since open-ended options did not produce more useful results than multiple-choice options.</td>
</tr>
<tr>
<td>SC</td>
<td>+ Application of multiple futures, as opposed to alternative futures.</td>
</tr>
<tr>
<td>service club</td>
<td>+ Comparison table of scenario paths.</td>
</tr>
<tr>
<td></td>
<td>+ Use assistant facilitators if there are many participants.</td>
</tr>
<tr>
<td>Barossa Valley</td>
<td>Usefulness of comparing different actors’ visions for one entity.</td>
</tr>
<tr>
<td>Multiple cases</td>
<td>Optimum number of participants is 15 to 20; CU and EM had too few, RN and SC had too many; LS and Barossa numbers worked well.</td>
</tr>
</tbody>
</table>

+ Changes preceded by a + symbol can be regarded as optional additions to the Process, to be used when relevant.

### 8.9.2 Limitations of fieldwork

The major limitation emerging from the fieldwork was that redundancy (in the sense of Lincoln and Guba, 1985) was not fully achieved, and not all elements of the sample design were fulfilled. Though the fieldwork covered a wide range of organizations and types of future, and fulfilled the basics of the original sampling plan, a still larger sample could have been helpful in addressing some process-related issues.
Of the 26 above additional entity types listed in Table 7.2, in the previous chapter, 15 were fully achieved, and only two were not achieved at all: the future of a concept, and the future of an ad hoc or temporary organization. The former had been lined up (“the future of lifelong learning in the City of Marion”), but participants proved difficult to organize; however, it may still go ahead. As for the latter, it is obviously difficult to study the future of an organization that was not planned to have a future; it will be a matter of timing, seizing a brief window when an ad hoc group wonders whether to disband after all.

Five other types of future were achieved only partially or tangentially:

1. A cluster of businesses, such as small manufacturers.
2. A grassroots group, without a leadership hierarchy.
3. An industry association. I found one that was willing to co-operate, but the central body had only a handful of staff, and the industry (residential construction) turned out to be too fragmented to enable even small workshops to be scheduled.
4. A local government agency.
5. A primary industry.

Another desirable entity, not included in Table 7.2, would have been an English-speaking entity outside Australia. Though the pilot study was done in Indonesia, communication through an interpreter was difficult, and I was not satisfied that I had understood all the nuances.

However, the sample covered 6 of the 9 subject domains in the FARTHINGS categorization described in chapter 6. It also covered three types of social entity (public, private, and voluntary sectors), two types of location (small region and country), and time horizons ranging from 6 months to 20 years.