THE NEED FOR “DYNAMISM” IN PLANNING FOR SUSTAINABLE DEVELOPMENT

The Case of Three Strategic Plan Documents in Australia

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy from the RMIT University

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August 2005
DECLARATION

_The candidate does hereby declare that:_

- except where due acknowledgement has been made, the work is that of the candidate alone; and

- the work has not been submitted previously, in whole or in part, to qualify for any other academic award; and

- the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program.

- There has been no editorial work, paid or unpaid, by a third party on this thesis.

_Signed:_

Carlos Rodriguez
August 2005
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<td>CSP</td>
<td>Canberra Spatial Plan</td>
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<td>DP</td>
<td>District Plans</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>LCA</td>
<td>Life Cycle Analysis</td>
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<td>M2030</td>
<td>Melbourne 2030: Planning for Sustainable Growth</td>
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<tr>
<td>NBHBP</td>
<td>National Board of Housing, Building and Planning in Sweden</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<tr>
<td>PPP</td>
<td>Policy, Plan and Programme</td>
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<tr>
<td>RMA</td>
<td>Resource Management Act</td>
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<td>RP</td>
<td>Regional Plans</td>
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<td>SD</td>
<td>Sustainable Development</td>
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<tr>
<td>SEA</td>
<td>Strategic Environmental Assessment</td>
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<tr>
<td>TBL</td>
<td>Triple Bottom Line</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
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<tr>
<td>UNEP</td>
<td>United Nations Environmental Program</td>
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<td>USA</td>
<td>United States of America</td>
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<td>WASSS</td>
<td>Western Australian State Sustainability Strategy</td>
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<tr>
<td>WCED</td>
<td>World Commission on Environment and Development</td>
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SUMMARY

This thesis explores how planning for sustainable development can be enhanced in Australia with a particular focus on strategic plans. Today, the concept of sustainable development has not been fully operationalised into plans; market and political forces still play a predominant role in planning practice. Nevertheless, some authors believe that the concept of sustainable development has reinvigorated planning. For example, there is an extensive literature on this topic within planning theory, although in practice, sustainable development has been difficult to implement.

This thesis after acknowledging the relevance of economy and politics, provides an alternative approach to operationalise sustainable development in plans through a technical perspective. This perspective is based on the examination, from literature, of several techniques which deal with sustainable development. The central idea is that these techniques can be embraced under one concept, “dynamism”. This concept represents the understanding that to be effective for sustainable development, plans need to incorporate in the plan-making process (as well as in the plan document), features that can correspond and deal with the changing and evolving nature of sustainable development.

Essential for “dynamism” are Strategic Environmental Assessment (SEA) and backcasting. These techniques are compatible and offer two further benefits. First, their combination provides a framework useful for comprehending how a plan can evolve and adapt over time with respect to a changing environment, and to outputs from implementation. Second, the dynamic process generated through their combination, sparks the notion that other techniques presenting similar behaviours (i.e. dynamic or adaptive) could be useful to operationalise sustainable development in plans.
Through the examination of “dynamism” in plans, especially in plan documents, this thesis presents an overview of the extent that sustainable development has been operationalised. More precisely, a qualitative and case study research method is employed to explore to what extent practitioners are developing dynamic characteristics in Australian strategic plan documents. Three Australian strategic plans are selected: The Western Australian State Sustainability Strategy, Melbourne 2030: Planning for Sustainable Growth, and The Canberra Spatial Plan. Semi-structured interviews to planning practitioners involved in the production of these documents were the source of primary information. Additionally, a document analysis of the printed plan documents provided complementary information.

The research, supporting previous literature, shows that the widespread awareness of sustainable development does not necessarily translate into an effective operationalisation of the concept into Australian strategic plans. However, the research also found the existence of central elements of “dynamism” in the sample selected. Future development of plans for sustainable development, should build on these elements and on a greater emphasis on technical knowledge. SEA and backcasting are an example of “dynamism”. They proved valuable in providing an alternative operationalisation of sustainable development in planning practice. Further research on SEA, backcasting and other similar techniques dealing with futures information is needed. This could provide Australian practitioners with a wider range of possibilities in the plan-making process that could bring to the fore decision-making alternatives that were not previously available.

Further research can be built on testing the SEA-backcasting framework, in particular a wider scope including market and political forces. It could also take into consideration the increasing relevance of electronic mediums, such as the webpage to support planning
processes. Additionally, limitations relating to the uncertainty of the findings, resulting from the size of the sample, can be overcome by widening the scope of the research to incorporate a larger sample.
Neoclassical economics and the market are well embedded in today’s economies, but there are also environmental consequences due to market failures calling for new planning approaches. This need has generated political responses, such as the Bruntland Report from the World Commission on Environment and Development in the 1980s, and the Rio Earth Summit and the Agenda 21 initiative in the 1990s.

The WCED (1987, p. 43) produced the well-recognised definition of sustainable development (S.D): “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. However as Blowers (1997, p. 156) stated “much effort has been expended in seeking definitions of sustainable development, much less on trying to operationalise the concept in terms of what a sustainable society might be like and what is necessary to achieve it”.

In regards to operationalising the concept, Blowers (1997) noticed that the debate had focus on rhetoric rather than the changes that will or should occur and how they are going to be managed. In this case planning plays a major role as it can help secure sustainable development through setting and implementing targets and encouraging patterns of land use that help to reduce resource consumption and pollution (Blowers 1997). In principle, planning is intended to ensure that the public interest is taken into
account, nevertheless the authors noticed that whether planning in practice functions to support private interests is a matter of debate (Blowers 1997).

The Agenda 21 initiative is an attempt to internalise sustainable development as it calls for national strategies, plans, policies and processes to make development ‘sustainable’. In this regard, Allmendinger et al. (2000) assert that in theory plans should integrate different aspects of sustainable development, but in practice local authorities and others appear to be uncertain on how actually to operationalise the concept of sustainable development in development plans, especially when faced with demands for growth and development in their areas.

In this regard, literature offers examples where the operationalisation of sustainable development in documents is analysed (Berke & Conroy 2000; Ericksen et al. 2004; Ericksen et al. 2001). The work from Berke and Conroy (2000) offers a definition for sustainable development that aims to investigate the extent to which comprehensive plans are promoting sustainable development. This definition (below) is central for this research in two regards. First, in the sense that the definition provides an example of examining the operationalisation of the concept within planning documents; and second, because an element of this definition, which was not developed by Berke and Conroy, is the focus for this research.

This element is the consideration of sustainable development as a “dynamic process”. The general definition for sustainable development by Berke and Conroy offered three other characteristics that were examined in their work: “reproduction”, “balance” and “link local to global concerns”. In turn, amalgamation of these three produced the following definition:
“Sustainable development is a dynamic process in which communities anticipate and accommodate the needs of current and future generations in ways that reproduce and balance local social, economic, and ecological systems, and link local actions to global concerns” (Berke & Conroy 2000, p. 23)

Notice that the definition refers to a ‘dynamic process’. This characteristic of sustainable development is mentioned as a property that extends from the formulation of the plan (Berke & Conroy 2000). Moreover, this is the case because “sustainability requires communities to pursue an evolving and ever-changing program of activities, including a continuous process of evaluating current and emerging trends, an ongoing means of encouraging citizen participation and negotiating conflicts, and an updating of plans” (Berke & Conroy 2000, p. 23). In the work of these authors the ‘dynamic process’ characteristic was not included because “plans do not fully account for procedural dimensions” (pg 23), but they do for substantive characteristics. The present research based on additional information such as strategic environmental assessment, backcasting and complex adaptive systems argues that this ‘dynamic process’ is crucial for the analysis of how plans are operationalising the concept of sustainable development.

From complex adaptive systems (Innes & Booher 2001) and other planning literature (Meppem & Gill 1997) similar concerns were found, although not at a plan level but at a more strategic level i.e. a system level. For example, under this framework, sustainability rather than being treated as a machine is treated as a growing evolving organism; or even cities, where they “can be treated like systems and undoubtedly they are complex adaptive systems” (Allmendinger 2002, p. 51)
These two ideas underlie the focus of this research. From this point, the thinking of authors in the field of planning and planning for sustainable development were used to generate a concept particular to this dissertation, “dynamism”.

“Dynamism” is considered to be more than a specific concept; it is an arrangement of various concerns from authors in relation to the operationalisation of sustainable development. The common denominator of this arrangement is that it gives plans an enlarged technical element which could ease the translation of sustainability statements into planning practice. The main characteristic of these concerns is that, in one way or another, they all reflect a degree of change that should be an integral part of land use plans.

Examples of these concerns are: the consideration of the city as a complex, evolving system; the need to develop a definition for sustainable development that emerges from the process of plan-making; the contemplation of ‘learning’ as part of the plan-making process (for example learning from the feedback of the community and others affected by the plan, learning from the plan document itself (format and content) and being able to give feedback about it); and the planning effects of including tools that deal with the future in an alternative way, such as backcasting.

The idea underpinning the use of “dynamism” was that in order to operationalise the concept of sustainable development in plans, they should also reflect the characteristics of the environment (i.e. changing, learning, adapting, evolving, etc).

Subsequently, it is argued in this dissertation that dynamism must be included in plans. The benefits of this addition will provide planners with an alternative way to
operationalise sustainable development in the document. Hence there is the potential for implementing plans in such a way that end results can take communities to a more environmentally-conscious type of development, especially given that our way of developing is showing serious flaws directly affecting society (i.e. inequity, poverty, degradation of natural resources, excessive exploitation of resources, etc). As a result, planners, politicians and stakeholders through dynamism will be able to prepare and consolidate plans that can provide them with a more suitable solution for current circumstances. Moreover, including dynamism has the capability of balancing the influence of external forces (i.e. market forces, political agenda) in plans with the need to plan for sustainable development. The implications of omitting dynamism have taken long-term plans to provide strategies more inline with economic pressures than with the needs from society. And since these strategic plans are the guidance for more medium and short-term plans, then its utilisation becomes essential.

1.1 Scope of this research

This research explores the set of concepts and ideas that will allow operationalisation of sustainable development to occur. Throughout the research this is referred to as “dynamism”. This concept is meant to reflect change, flexibility, adaptability and review, in order to provide the necessary procedural conditions to deal with the characteristics of the goal, i.e. sustainable development. Further, to contain the complexity of the research, and since there had not been previous examination of the status of strategic plans from the sustainable development perspective in Australia, the research is focused on the practice of planning in Australia.
Therefore, the objective of this research is to explore through ‘dynamism’ the current state of the plan making process in Australia, particularly plan documents, in terms of the characteristics that will allow them to evolve and constantly aim for sustainability. These characteristics will also increase the role that sustainable development can play in current planning documents, now under the heavy influence of market forces. In this regard, literature has shown that in practice, planning for environmental sustainability and social justice has been curtailed by the combination of globalisation with neo-liberalism (Stilwell 1997). This latter area of research, although relevant for planning, will not be pursued; rather this research will focus on the exploration of “dynamism” in planning practice.

As an overarching note, it is important to mention that the research points at written versions of the plan -the plan documents- as the main object of investigation. Having said that, it is recognized that the written document is part of a much wider process, the plan, which also includes formulation, implementation and review (insight provided by interviewees and literature). The strategic plans analysed are: The Western Australian State Sustainability Strategy, Melbourne 2030: Planning for Sustainable Growth, and The Canberra Spatial Plan. These were selected as they represented, at the time, the latest plan documents in Australia and they provided examples of different planning departments strategic plans for the future. The main analysis of this thesis presents the stance of the policy-makers behind these plans documents and the exploration of “dynamism”.

1.2 Organisation of the dissertation

The dissertation is comprised of seven chapters. The study is divided broadly into three major sections. The first section, comprising chapters 2, 3 and 4 develops the concept of
‘dynamism’, relates dynamism to tools for sustainable development such as strategic environmental assessment and backcasting, and to its emergence in planning approaches.

**Chapter 2: Planning Approach.** In this chapter the position of the researcher is established within different planning perspectives. Additionally, a description of the repercussion of various planning theories in shaping the dissertation’s technocratic point of view, such as systems theory, ‘muddling through’, advocacy planning, Marxist and radical democratic-inspired theory, environmentalism, neo-liberalism and strategic planning, is provided.

**Chapter 3: Planning and Sustainable Development.** Once a position towards planning is defined, sustainable development is used as the conceptual framework guiding the research. This chapter has three main sections. In the first section planning for sustainable development as a process is discussed. In the second section, strategic environmental assessment is presented as a procedural tool which can aid with sustainability goals. The last section, gives a brief overview of futures research and backcasting’s potential to contribute in planning for sustainable development. The aim of the chapter is to provide the basis for the construction of a framework for sustainable development that reflects a dynamic process.

**Chapter 4: Sustainable development and “dynamism”**. In addition to providing a survey of the literature on the different concepts and ideas referring to sustainable development as a dynamic process, and on working through an example of “dynamism” made up from two procedural tools: strategic environmental assessment and backcasting, the researcher states his own definition of “dynamism” derived from literature review. To
conclude this chapter an enhanced framework (using SEA and backcasting) where the criteria can be positioned is presented.

The second section, chapter 5 discusses the development of a particular methodological approach for analysing qualitative data from two sources: primary data from interviews undertaken to key practitioners, which are further explain below; and secondary data from the analysis of strategic plan documents themselves.

**Chapter 5: Methodology.** This chapter presents the type of research strategy chosen, the choice of the sample for the study, the process of data collection, and the method for analysis. A qualitative and case study research method was employed to explore to what extent practitioners are developing dynamic characteristics into the three current strategic plan documents that were selected.

The selection of the sample of plan documents (secondary data) was based on the idea of providing as recent and wide understanding as possible. The primary data were collected through semi-structured in-person interviews with key practitioners involved with the developing of the documents. The practitioners involved either belong to the department in charge of developing the plan or to a department that collaborated in this task. The practitioners interviewed held a wide spectrum of responsibilities such as: project leaders, supporting technicians and authors of the plan. These results are provided in Appendix 2. In addition an analysis of the content of the documents was performed (Table 11 and 12, Chapter 6).
In the third section, chapters 6 and 7 present a summary of the findings and provide a discussion of their theoretical and practical implications as well as the need for further research.

**Chapter 6: Discussion.** This chapter provides an analysis of the strategic plan documents in regards to the criteria of “dynamism”. First, a discussion of the meaning of the level of “dynamism” obtained in the documents is presented; second, a discussion of these results in relation to the current context of planning practice in Australia is provided; finally, an analysis of the limitations of the study is provided.

**Chapter 7: Conclusion.** This chapter provides a review of the major findings of the research, suggesting that there are ways for improving strategic plan documents in relation to sustainable development practice. It is hoped that by the exploration of techniques and tools in practice, this research will give practitioners arguments to find alternative planning methodologies and elements which can complement their own efforts in planning for sustainable development. It is also hoped that this research will provide supplementary elements to plan documents that could help extend their existence and relevance in planning practice.

Finally, it is suggested that further exploration of the ‘bag of tools’ used for planning sustainable development, such as the ones used for this research, is needed so that hidden benefits and relationships between them could be revealed, thus giving technical practitioners a wider array of possibilities in the plan-making process that could bring to the forefront of decision-making alternatives that were not available before.
2. Planning

Chapter 2

PLANNING

2.1 Evolution

Hall (2002) describes three separate stages in the evolution of planning theory. The first stage (What to plan), developed in the nineteen hundreds with Scottish biologist-sociologist and town planner Patrick Geddes (1854-1932), down to the mid-1960s-could be called the Master Plan or Blue Print era. Planners saw planning as concerned with the production of plans which gave a detailed picture of some desired future end state to be achieved in a certain time (Faludi 1987; Hall 2002).

The second stage (How to plan), began in about 1960, and it could be called the Systems View of planning; this is basically the comprehensive rational approach (Pettit & Pullar 1999). Batty (1982) describes it as the way of treating any entity as a system whose parts are interrelated and organized hierarchically. McLoughlin (1969), drawing on an understanding of the world as an ecosystem (ecological thinking), uses this concept to support planning by considering the town as a ‘live’ functioning entity.

The third stage (Resolving Conflict), which began to evolve in the late 1960s, is more heterogeneous and more diffuse; it concentrates on the idea of planning as a continuous participation in conflict (Hall 2002).
2.1.1 What to Plan

This first stage can be best understood as a reaction to what cities were experiencing at the end of the nineteen century. Hall (1992) in his book of planning history described this moment, quoting Mearns (1883):

…tens of thousands are crowded together amidst horrors which call to mind what we have heard of the middle passage of the slave ship. To get to them you have to penetrate courts reeking with poisonous and malodorous gases arising from accumulations of sewage and refuse scattered in all directions and often flowing beneath your feet; courts, many of them which the sun never penetrates, which are never visited by a breath of fresh air, and which rarely know the virtues of a drop of cleansing water. You have to ascend rotten staircases, which threaten to give way to beneath every step, and which, in some cases, have already broken down, leaving gaps that imperil the limbs and lives of the unwary. You have to grope your way along dark and filthy passages swarming with vermin. Then, if you are not driven back by the intolerable stench, you may gain admittance to the dens in which these thousands of beings who belong, as much as you, to the race for whom Christ died, herd together. (Mearns 1883, p. 4)

Therefore, the planning solutions to this problem became engaged with developing conditions that will allow advancement in the quality of life by physical city improvement. Three responses arose at this time sharing a goal towards what each of them thought to be the ideal city. Ebenezer Howard, focusing on the communal cooperative spirit, created the Garden City which was supposed to work as a vehicle for a reconstruction of capitalist society (Hall 1992). The City Beautiful movement associated
with Daniel Hudson Burnham, concentrated on the beautification of the city generating criticisms of elitism, due to its focus on the surface improvements of the city leaving aside problems such as poverty. Finally, Le Corbusier developed the concept of the Radiant City where high density, mass scaled and verticality were the main characteristics. This is seen by Campbell and Fainstein (1996) as the social extension of modern architecture.

These three approaches of intervention in the city are interpreted by Jacobs (1961) as sharing the idea of replacing the internal relationships and complexity of the place by a static and abstract logic of an ideal planned city.

These proposed interventions to the city can be explained as a result of the historical context that cities were in. At this time the power of governments was substantial allowing them to consider these approaches as achievable. Technical and scientific advancements were to the fore. Therefore planners were encouraged to produce plans in a technocratic way with no consideration of political or societal forces.

The plans apart from drawing on disciplines such as engineering, architecture and landscape architecture also gained contributions in the 1930s from American social sciences. This contribution proved valuable and plans now include population, employment, transportation statistics and projections intended to validate the plan (Gerckens 2001).

This type of planning continued on until the 1950s when the western world would change in response to the effects of the WWII, more precisely the baby boom. This sudden increase in population demanded infrastructure such as maternity wards, child care clinics
and school playgrounds (Hall 2001). This demand was hand in hand with a post war economic boom which caused significant impacts on the demand for housing and hence triggered a reinvigoration of the construction sector. Consumption was also affected in a similar way, and resulted in mass consumption especially for durable consumer goods. Planning no longer served a static world, now it engaged with a more dynamic world (Hall 2001).

2.1.2 How to Plan

According to Hall (2001), three developments occurred in the 1950s in America. Firstly a new academic discipline emerged from the union of geography and the German tradition of locational economics: locational analysis. Secondly, from the science of cybernetics the theory of systems was developed which helped to monitor and control missile systems during the cold war. Thirdly, the implementation of these two sets of ideas in the field of transportation planning assisted in the development of models to monitor and control urban development. Consequently the planner was dealing with a process of how to plan and not with a static reference of what to plan.

A systems view of planning

Planning can be defined as the making of an orderly sequence of actions or course of action that will lead to the achievement of a stated goal or end (Banfield & Meyerson 1955; Campbell & Fainstein 1996; Hall 2002). Fundamental for the achievement of the goal is monitoring and control as a way to optimize the model (Chadwick, 1978). Thus, if this was true, so was the idea of modelling a real world system (i.e. the city). As Roberts (1985, p. 19) stated, this way of planning is characterised by “its view of the subject
matter of planners as systems and sub-systems of man’s activities, with their physical manifestations and their inter-relationships”.

These relationships were the product of perceiving the cities and regions as systems of connected parts in constant change; a perception that was influenced by the development of systems thinking in biological sciences, where it was argued that systems are everywhere and that they could be controlled by regulating the communication between the parts (Allmendinger 2002).

The certainty that this kind of modelling systems was possible is illustrated by Figure 1. Here, McLoughlin (1969) provides an example of the model of systemic planning. It encompasses six stages: a) decision to adopt planning; b) goal formulation and identification of objectives; c) study of possible courses of action, by using models to simplify the operation of the system; d) evaluation of the alternatives in relation to their objectives; e) implement the preferred action; and finally, after an interval, f) a review (monitoring) will be carried out to bring the system into conformity with the plan.
The goal of these planners was to reach a point where the city and its complexities could be represented by a model, but this was exactly what they were having problems with, even with an increased capacity in computers. This situation created a moment where theory divides in two. First, a part which believed that such complexity meant that planning was impossible and should be left to the market (Friedrich von Hayek): this formed the basis of the neo-liberal thinking. And second, a part which believes that cities could be modelled if the computational power was available. In this regard, McLoughlin (1973) presents computers as indispensable if cities are to be explored in a quantified manner.

But the main concern in systems theory between the layperson and the expert planner was not about computational power or access to computer models, it was about control
The way these issues were presented had a major implication: it concentrated control in the hands of planners and other selected groups, resulting in exclusion. Also, as a result of emphasising the procedural and technical dimensions of planning, more substantive issues or values to which planning was applied were de-emphasised.

This emphasis in the technical dimensions brought rationality to the forefront of planning, hence the “planner as expert could use technology to ameliorate the conditions of the working classes, secure the position of the capitalist classes and supplant politics with science and reason” (Moloney 2001, p. 20). However, this achievement of the planner (produced by a systematic consideration and evaluation of alternative means of accomplishing the preferred goals) failed to account for the complexity of the competing objectives, and the contradictory aims of the increasing number of actors involved (Allmendinger 2002), putting systems planning in an untenable position.

The planner was using this approach believing that planning problems could be solved by optimizing methods. However, in practice urban planning systems proved to be more complex than its predecessor, the missile system from the cold war. Hall (2001) in relation to the unsuccessful claim of the systems school to scientific objectivity, states that:

“in urban planning, there was not just one problem and one overriding objective, but many, perhaps contradictory; it was difficult to move from general goals to specific operational ones; not all were fully perceived; the systems to be analysed did not self-evidently exist, but had to be synthesized; most aspects were not deterministic, but probabilistic; costs and benefits were difficult to quantify.”

(Hall 2001, p. 347)
These flaws of systems planning together with societal concern in terms of the effectiveness of systems planners to improve the condition of the cities (i.e. the riots in American cities in the 1960s), plus a blindness towards politics and difference within society, meant further changes in planning theory.

### 2.1.3 Resolving Conflict

In this stage the planner as a manager and a resolver of conflict finds himself in a position where computers, modelling and statistical information is giving limited answers to current problems in both America and England. This causes a reaction to systems theory from two sources: first, the American philosophical right with the ‘muddling through’ or ‘disjointed incrementalism’ approach; and from the left a reaction that called on the planner to practice bottom-up planning, called advocacy planning (Hall 1992).

‘Muddling Through’

This theory saw the systems approach as one that requires an excessive amount of information and does not take account of community. Friedmann (1987) explain Lindblom’s (1959) theory as:

“The only reasonable alternative was to divide large decisions into smaller ones and distribute them among a large number of actors who would make their decisions independent of each other…each actor would pursue its own interests on the basis of information received about the actions of all the other actors in the situation. With each actor pressing for his own advantage, all relevant points of
view (and the supporting information) would eventually be brought out for their joint consideration. Under given circumstances, the outcome of such a process would also tend to be the most rational that was practically attainable.” (Friedmann 1987, p. 129)

These smaller decisions were taken for the short-term benefit of each of the actors. Supporters of this theory did not believe in the long-term benefits of planning, “better, then, to rely on short-term ‘interactions’ among the principals involved in given situations - a pluralist politics - than to make grandiose plans whose consequences we cannot hope to control” (Friedmann 1987, p. 134). This is the reason why this theory has a characteristic called Succession of Comparisons (Lindblom 1959). This characteristic indicates that a policy is not made once and for all, but it is made and remade endlessly: “policy making is a process of successive approximation to some desired objectives in which what is desired itself continues to change under reconsideration.” (Lindblom 1959, p. 299)

In short, this theory brought new ideas on how to conduct public policy that were different from the comprehensive approach, but it did not offer a solution to the social problems experienced in the 1970s. It failed to be applicable in a world which was in constant change and where different sectors of society had unequal access to power including information. Nevertheless the emphasis on agreement, consensus and mutual adjustment became pillars for later collaborative planning theory (Allmendinger 2002).
Advocacy planning

This theory, like ‘disjointed incrementalism’, brought competing groups with different interests into the area of public policy. The planner as an advocate of the poor and the weak, would aim for an explicit debate about goals and objectives that previously under the apolitical comprehensive approach was thought to be part of the planner’s expertise (Hall 2001). This situation led for example to the production of ‘competing plans’, which were prepared by different groups that might be in contradiction with the plan drawn up by the public authority (Allmendinger 2002).

Consequently, advocacy planning was useful to stop insensitive plans and to challenge traditional plans with a unitary public interest (Hudson 1979). Hudson (1979) also states that the increased requirements for environmental, social and financial impact reports to accompany large-scale project proposals resulted in moving planning from a closed-backroom process into a more open pluralist situation.

Planning then was shifting from physical to a more social and economical discipline. Hall (2001, p. 334) describes this change as:

“in 1955, the typical newly graduated planner was at the drawing board, producing a diagram of desired land uses; in 1965, s/he was analysing computer output of traffic patterns; in 1975, the same person was talking late into the night with community groups, in the attempt to organize against hostile forces in the world outside”.
As a result of these reactions in planning theory, by the mid-1970s planning was in a stage of ‘paradigm crisis’. Davoudi (2000) divides this crisis into two streams, one focusing in the process of planning and the other one, concentrating on the substance of planning. Table 1 describes these two streams in the UK.

### Table 1. The twin faces of the planning system in Britain, mid 1970s

<table>
<thead>
<tr>
<th><strong>Ideological Face</strong></th>
<th><strong>Regulatory Face</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rooted in social purposes and reformist ideas of the early 20th century</td>
<td>Outcome of the process of institutionalization and professionalization</td>
</tr>
<tr>
<td>Independent and radical thought</td>
<td>Technical and bureaucratic</td>
</tr>
<tr>
<td>Visionary</td>
<td>Short-termist</td>
</tr>
<tr>
<td>Promotes spatial strategies</td>
<td>Assess development impact</td>
</tr>
<tr>
<td>Integrated</td>
<td>Sectoral</td>
</tr>
<tr>
<td>Concerned with strategic place-making</td>
<td>Engaged in conflict mediation</td>
</tr>
<tr>
<td>Dominated planning until the mid-1960s</td>
<td>Dominated planning since the 1970s</td>
</tr>
</tbody>
</table>

Source: Davoudi (2000)

This shift in planning also corresponds to the changing role of the government. In the ideological phase, planning was guided by a powerful central government whose plans aimed at society as a whole with an emphasis on place. In the regulatory phase, after the economic crisis of the 1970s, the government was considered better suited for roles aimed at resolving conflicts within society which was now recognized as having different interests. In general, the changing conditions of this period placed planning under critical examination, generating several reactions.
2.2 After the ‘paradigm crisis’

Before continuing, it is worth mentioning what was happening in ‘real life’- that is in the practical sense of planning. An example of this reality comes from Couch (2003), who comments on the changing role of planning, and planners:

“as the availability of resources declined during the recession of the 1970s, especially in the public sector, so choices between conflicting goals became harder and harsher. Planning decisions became more controversial as more individuals and more groups found themselves on the losing end of the process that allocated these increasingly scarce resources…The role of the planner gradually moved away from that of technical expert into that of communicator and negotiator, mediating between the conflicting interest of different groups, usually with developers on one side and conservationist or local communities on the other.” (Couch 2003, p. 3)

According to Gleeson and Low (2000), four main critiques arise at this stage of crisis: the Marxist, the radical democratic, the environmentalist and the neoliberal. Sandercock (1998), gives a different version of this period but this research follows Gleeson and Low’s account which provides a clear framework with which to discuss the many theories in regards to the paradigm crisis.
Marxism

Many planners looked for an explanation of the paradigm crisis under Marx’s theory of capitalism and the state. This quest was the generator of the urban political economy critique, which focused on planning’s place in capitalist society (Gleeson & Low 2000). Gleeson and Low (2000, p.131) for example, stated that “there was a common view that planning was implicated in the reproduction of unjust social and economic relations”.

Basically, the urban political economy generated by the Marxist point of view was pointing out that land use was a reflection of the capitalist economy and therefore was a pillar for sustaining a property-owning class (Gleeson & Low 2000). This critique sparked the idea that planning was co-opted by property owners; therefore anything about planning was also about benefits accruing to one social class.

Even though this critique lost momentum during the 1980s due to its excessive concern with economic relationships, the legacy was that planning reflected power relations. Sandercock (1998, p. 92) says in this regard that “Marxist critique has demystified the idea that planning operates in the public interest, making it very clear that class interests are always the driving force.”

The radical democratic

In general terms this critique is about the democratic shortcomings of planning, particularly the state and private sector tendencies of ignoring cultural diversity. Under this classification many groups have nurtured this critique: advocacy planners, feminists
and the civil rights movement. Debates focused on oppression and exploitation or, on poverty and exclusion under an international context (Sandercock 1998). According to Sandercock (1998, p. 97) the aim of these practices is to “work for structural transformation of systematic inequalities and, in the process, to empower those who have been systematically disempowered.”

A current direction in planning theory which has been influenced by the radical democratic criticism is collaborative or communicative planning. The main purpose of the latter is to bring people together and produce an agreement that represents their mutual interests (Healey 1997).

Environmentalism

Environmentalism rather than focusing on fundamental human aspirations such as democracy, concentrates on how planning has impacted the environment.

Just as the radical democrats, environmentalists also share an attachment to progressive human-centred values such as social justice, social inclusion and participatory democracy, but specifically the latter have sought to redirect planning towards values such as ecological sustainability, sustainable development (SD) and environmental justice.

This perspective has its origins as a response to environmental conditions especially after WWII where the priority was economic growth and reconstruction. It was mainly a reaction towards contamination and exploitation of natural resources, and the necessity to preserve resources for both productivity and amenity.
This reaction found residence in documents like the Bruntland Report, Our Common Future (World Commission on Environment and Development, 1987), the National Strategy for Sustainable Development in Australia; and in summits like the Earth Summit in Rio de Janeiro, which produced the Rio Declaration on Environment and Development and the Local Agenda 21, instigating governments to take a more interventionist position on environmental planning. The Resource Management Act (RMA) in New Zealand is an example of this kind of intervention, where a ‘green’ plan is established on the basis of a national environmental law.

Consequently, environmentalism reinvigorated planning with the goal of sustainable development at the core of urban and spatial regulation (Gleeson & Low 2000).

Neoliberalism

From the subsection on Systems Planning, it is possible to recapture the moment when for some, the complexities of the city were such that it was impossible to model them, and therefore it was said they should be left to the market. Friedrich von Hayek argued for individualism, the organizing capabilities of the market, and for a minimal state within others. He was a firm believer that the market was able to solve the problems that planning was not (Allmendinger 2002).

Some authors including Glesson and Low (2000, p.171), state that “the intellectual case against urban planning rests essentially on the proposition that planning both distorts land markets and raises the transaction costs of development through bureaucratisation of the
According to Neoliberalism this could be solved by the removal of public regulation and its replacement by commercial relations between individuals which will be more efficient (Glesson & Low, 2000, p.171).

Arguably, planning has reformulated itself less around correcting and avoiding market failures, but more by facilitating development through spatial regulation. This is done “as an inevitable process of change under supposedly compelling force of globalisation” (Gleeson & Low, 2000, p.185).

It is worth noticing that this last critique is closely related to day-to-day life and what society is going through. A particular example of this situation can be found in Moloney’s (2001) work, where she demonstrates the retreat from public planning in Melbourne. The author revealed “how particular claims and arguments helped to diminish the purpose and practice of planning in the ‘public interest’ and social and environmental goals, and to increase the involvement of planning in the narrow pursuit of economic growth through the urban development process and place-marketing.” (Moloney 2001, p. 312)

Strategic planning

Finally, strategic planning is not considered under Glesson and Low’s (2000) account of the critiques to comprehensive planning but it is an important reference for further chapters of this research. The roots of strategic planning are located in the military notion of ‘strategy’, where the idea was to “never lose sight of the ‘final’ military objective within the continually changing tableaux of battle” (Salet & Faludi 2000, p. 1). More
recently, in the 1960s, this approach to planning became well-known as corporate planning (Ward 2004).

According to Roberts (1985), strategic planning can also be called ‘action’ planning with an emphasis on implementation and decision-making factors. The rise of this critique is based on the need by comprehensive planning of incorporating action and implementation. Friedmann (1969, p. 312) states that “it is still the old language, but the perspective is new: planning and action are brought together and fused”.

Currently, strategic planning refers to different things. The United Nations Human Settlements Programme (2004) gave an overview of the ideas associated with this term. The first idea was about the adjective ‘strategic’, which refers to a strategy for implementing a plan or part of a plan. The second idea, introduces ‘strategic planning’, as “comprehensive spatial plans with a planning horizon of twenty or more years. An example is the current strategic plan for Hong Kong 2030: Planning Vision and Strategy” (2004, p. 180). The third idea, ‘strategic focus’, points to high priority projects that require active collaboration from stakeholders for its implementation. Examples of this are the Central Station in Rotterdam, Melbourne’s River Revitalization or the London Docklands (United Nations Human Settlements Programme 2004).

Additionally, the National Board of Housing Building and Planning in Sweden (NBHBP) (2000) points at the following implications of the “strategy” concept in comprehensive planning:

1. “To think in the long term on the basis of the concept of sustainable development.
2. To stress different developmental directions and sequences of events, chain events and choices rather than the ultimate situation ready solutions.

3. To lay the basis through preparation through planning for encouraging threats and challenges in a changeable and uncertain world.

4. To attempt to evaluate the potential for affecting various conditions” (p. 64)

This last interpretation of “strategy” complemented with the second idea from the UNHSP (2004) that refers to a spatial plan with a planning horizon of twenty or more years reflects some of the characteristics which will influence further analysis in this research; for example, the selection of the sample.

### 2.3 Overview

Chapter Two recounts planning’s evolution and the reactions to comprehensive planning during paradigm breakdown. The description at this point needs to be narrowed down into the scope of this research. Therefore, the conclusion explains the researcher’s point of view in relation to planning theory and gives a brief overview of the different ideas from the described critiques.

Friedmann’s (1987) presents an account of the planning traditions. He describes four groups of traditions:

1. Social reform, with its focus on the role of the state in guiding society;
2. Policy analysis, “the technocrats”, concentrating on synoptic analysis and decision-making as the means of identifying the best possible course of action;
3. Social learning, focusing on overcoming the inconsistencies between knowing and acting; and
4. Social mobilization, viewing planning as a form of politics, conducted without the mediations of “science” (Friedmann 1987)

It is the tradition of policy analysis which is the base of this research. There are two ideas from policy analysis that connect to this research and are worth highlighting:

1. Followers of this tradition take into account neo-classical economics, statistics and mathematics, and cluster themselves into sub-disciplines such as systems analysis, policy science, operations research and futures research.

In relation to the present research, futures research provides a valuable source of information in relation to tools for futures analysis, such as backcasting (see Section 3.5).

2. The ideal-typical decision model from this tradition follows the scientific method presented previously in Figure 1. This method which has a major influence in tools such as strategic environmental assessment (see Section 3.4) sets the background for the procedural analysis used in the next chapter.

These two characteristics of policy analysis give a general idea of what this research will be embracing further along the track. More specifically, the following is a selection of ideas from the different critiques that will form part of this research:

- comprehensive planning provide a way of looking at the city as a system, integrating the different elements of the plan using control and monitoring to guide the system;
• from the incremental planning approach comes the idea of a succession of interactions on policy making, which could in turn be related to the systems approach through the idea of systematically reassessing outcomes;
• from advocacy planning comes the necessary support to have community as a ‘must’ element in any planning situation, especially when the community is in need of better development;
• from environmentalism, arises the necessity of including sustainable development as a planning goal; and
• strategic planning supports the idea of developing an analysis for long term strategies which can aid in the incorporation of sustainable development principles.

This research draws on these added features in order to set the scope of the following chapters. Therefore the next chapter focuses on describing sustainable development as a process which can be represented by procedural tools and techniques. It is worth reiterating that despite knowing that planning is a political process, this research has taken a “technocratic” approach due to the selection of tools for plan analysis.
In the previous Chapter, Environmentalism rises as a critique to comprehensive planning because environmental concerns were not part of the planning process even though environmental deterioration was becoming evident. However, planning has evolved such that today it plays a major role (i.e. Local Agenda 21). The current section explores the area of environmental planning, more specifically sustainable development which is embraced by this research as a major planning goal. This is carried out in four parts. First, it deals with the evolution and definition of the concept of sustainable development. Second, it describes the relationship between planning theory and sustainable development. Third, it explains planning for sustainable development as content and as a process. And finally, the fourth section providing an emphasis on planning for sustainable development as a ‘process’ focus on policy tools for sustainable development at the strategic level.

3.1 Evolution of the concept of sustainable development

Early in the last century the environment played a particular role in planning theories. It was a relevant element of landscaping. The City Beautiful and the Garden City in
North America and England respectively are examples of this. It reflects the belief that such beautification could thus provide a harmonious social order that would improve the lives of the inner-city poor (Wikipedia 2005).

After WWII, the long economic boom was causing pollution and contamination. One of the first responses calling on local environmental awareness was the publication of ‘Silent Spring’ by Rachel Carson in 1962. The Club of Rome (an ‘invisible college’ composed of researchers, industrialists, managers and scientists from around the world (Pezzoli 1997)) published ‘The Limits to Growth’, a report on the trends and expectations of the human situation. This report promoted further research around the idea that infinite growth was not possible under earth’s finite resource capacity. In 1972, the United Nations’ Environmental Program (UNEP) was created at the Stockholm Conference on the Human Environment. Finally, the most well known response to environmental awareness ‘Our Common Future’, commonly known as the Bruntland Report, popularised the concept of ‘sustainable development’ (WCED 1987).

The most recalled definition of sustainable development (SD) is the one by the World Commission on Environment and Development (WCED) (1987, p. 43) as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. Pezzoli (1997) outlines ten types of definitions for sustainability, indicating the breath of this subject.

The discussion around the types of sustainability arose from three related elements in the definition: development, needs and future generations (Blowers 1996).
Development should not be confused with growth; the latter refers to quantitative expansion while the former incorporates ideas of progress. In relation to needs, the disequilibrium between developed and developing countries in satisfying people’s basic necessities is highlighted. In regards to future generations, Blowers says that the world should hand on a better environment to the next generation in areas where it is heavily degraded, such as the inner city. Future generations are also the propeller for the principle of intergenerational equity, a major component of sustainable development.

Whilst there are other definitions of sustainable development (see Chapter 4, Sustainable Development and ‘Dynamism’), the intention of the research at this point is to illustrate the basic concept and to describe the influence it has had on planning.

### 3.2 Planning relationship with sustainable development

This section is divided in two parts: one based on theory and the other one on a practical assessment. In the theoretical part, the influence sustainable development has had on planning is described; and in the second part, the current practice will demonstrate how far sustainable development has penetrated planning practice.

a) Theory

Campbell (2002) describes the effect of sustainable development on planning by the ways planning scholars have integrated sustainable development into their language and theoretical arguments. His work is based on a review of recent planning journals
(Journal of the American Planning Association, Journal of Planning Education and Research, Journal of Planning Literature) and other literature. He describes seven groups/clusters of different approaches depicted in Table 2.

Table 2. Planning theory and sustainable development

<table>
<thead>
<tr>
<th>Cluster of Approaches</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sustainable development as the new planning paradigm</td>
<td>SD is the “great integrator to unite the field and build broad coalitions” (Campbell 2002, p. 5)</td>
</tr>
<tr>
<td>2. Sustainable development welcomed, but as just one of many emerging new ideas in planning</td>
<td>SD is a “useful but only partial answer to planning’s fundamental challenges. It will thus join other contemporary planning schools of thought, including communicative action, new urbanism, post-modernism, regime theory, social justice, and strategic planning“ (Campbell 2002, p. 6)</td>
</tr>
<tr>
<td>3. Sustainability: “Old Wine in New Bottles”</td>
<td>The key point is there is nothing new in SD. “Repackaging much of existing planning activity under the sustainability label simply provides some extra cachet- and allows planners to better plug into the broader sustainability movement” (Campbell 2002, p. 8)</td>
</tr>
<tr>
<td>4. Fundamental contradictions impede sustainable planning: sustainability is superficially endorsed, but its core values are ignored</td>
<td>“Planners will superficially endorse sustainability, but it will lead to little fundamental change in planning theory-and even less in practice” (Campbell 2002, p. 9)</td>
</tr>
<tr>
<td>5. Sustainable development is rejected</td>
<td>This cluster is an increase on the level of skepticism on the above (cluster 4) superficially endorsed Sustainable Development. Even the left are critical because it preserves the status quo, “making only those changes required to maintain that status” (Campbell 2002, p. 9)</td>
</tr>
<tr>
<td>6. Sustainable development is ignored altogether</td>
<td>SD is explained from two perspectives: one that SD is irrelevant; and second that SD is just one of many approaches, with no use in expanding it.</td>
</tr>
<tr>
<td>7. “The jury’s still out”- sustainability is a potentially promising but still untested planning strategy</td>
<td>Sustainability is still under revision; its ultimate importance relies not just on theory but also in its ability to generate tangible results.</td>
</tr>
</tbody>
</table>

Source: Campbell (2002)
According to Campbell (2002) sustainability’s impact on planning theory is proportional to how well it answers the following questions: ‘What is wrong?’ ‘How did we get here?’ and ‘What is the alternative?’ He concludes that sustainability only partly succeeds. Regarding ‘what is wrong?’, sustainability is more or less well endorsed in providing a clear state of existing abuses to natural systems and offers an appealing normative vision of a human-nature ecological balance. However, Campbell notices that for the other two questions the challenge is greater.

So although, the concept of sustainable development is clear, the relevance in planning theory is unclear as yet. Having said that, the concept has had a substantial and growing impact on the field. In the next section, this impact is described in planning practice.

b) Practice

It is a fact that neoclassical economics and the market are well embedded in today’s economies, but there are also environmental consequences due to market failures calling for new planning approaches. Kenny and Meadowcroft (1999, p. 5) state that market-based economies are experiencing difficulties in creating flexible and long-term solutions, noting that the urgency in environmental problems could possibly “rekindle interest in some older ideas about the ethical and practical merits of state and sub-state planning”. A relevant example of this, and “perhaps the most immediately significant of all of the ‘bridges’ between these two sets of ideas and practices”, is the actual ‘planning for sustainability’ (Kenny & Meadowcroft 1999, p. 6). Examples in this area are a direct consequence of the Rio Earth Summit and the
Agenda 21 initiative. The latter calls for the need to develop national strategies, plans, policies and processes in order to make development ‘sustainable’.

These achievements in planning contrast with Davoudi’s (2000) perception of the planning situation in Britain. The author states that despite the elaborated discourse of sustainable development, the planning system still concentrates on short-term economic priorities against long-term environmental concerns. Therefore “it is difficult not to conclude that the future of planning will be one of the continuation of the status quo with some new developments in its quasi-technical role in development impact assessment and in its negotiative role in conflict mediation” (Davoudi 2000, p. 132).

Behind these different levels of success in implementing sustainable development, there are several responsible factors such as technical, political or financial (Norton 2002). The present research acknowledges the existence of these factors, but in order to evolve the line of argument, the political and financial reasons will not be pursued and technical factors will be the centre of the analysis.

### 3.3 Planning for sustainable development

From the previous section, it is clear that the concept of sustainable development has affected planning. An illustration of this situation is the different definitions for planning provided by Blowers (1997). The first definition refers to planning as “a government activity which, in principle, is intended to ensure that the public interest is taken into account in the distribution and allocation of land to particulars uses”
(1997, p. 154). From this definition it is expected that planning will ensure to secure sustainable development; for example, through encouraging patterns of land use that reduce pollution and resource consumption (Blowers 1997). The second definition, points at a “broader” definition where planning concerns relate to environmental protection and more social equity. In this case “planners are a group working alongside other interests in civil society…whose purpose is to promote the needs of the environment as an integral part of social and economic development” (1997, p. 154).

In either case planning shows a commitment to sustainable development. Examples of this commitment are the production and implementation of national strategies or plans under the banner of Agenda 21. The National Environmental Policy Plan in the Netherlands (Netherlands Ministry of Housing Spatial Planning and the Environment 1989), and the Resource Management Act in New Zealand (Memon & Glesson 1995) are global examples of this influence in planning. An additional example is provided by Owens and Cowell (2002, p. 16) when they stated that “by the mid-1990s ‘planning and sustainability’ was firmly on the policy agenda. By the end of that decade, the British government could strenuously assert that sustainable development lay at the heart of national policy for the planning system”.

In short, as Owens and Cowell (2002, p. 17) note, “planning in general, and land use planning in particular, has become an important arena for articulating and mediating conflict about the meaning of the term”, (sustainable development). The present section is a further exploration into the term, although not in relation to the
dimensions of sustainable development (economy, society and environment) but into how we plan for these complementing elements to provide a goal for society.

Planning for sustainable development in this dissertation originates from the limited implementation of the sustainable development concept. According to Owens and Cowell (2002) the ‘usual forces’ are behind this limited implementation. These forces referred to are: ‘insufficient knowledge’ (also pointed by Norton 2002), ‘inertia’ and ‘competing demands’. However, these are not the only concerns about limited implementation. Additionally the authors indicate a more elaborate and complex debate about implementation where its mild success “points to a more fundamental dislocation between competing interpretations of what it means for development to be sustainable” (p.25). This last matter is not treated in this dissertation. On the other hand the issue of ‘insufficient knowledge’, emphasising the limited knowledge about alternative uses of planning techniques, is the main concern of this research.

Focusing on comprehensive plans, this section provides a description of planning for sustainable development from two perspectives: content and process. The objective is to highlight the links between comprehensive plans and their processes, particularly on procedural techniques for sustainable development. It is argued in this research that the use of these techniques could generate alternative approaches to planning for sustainable development.
3.3.1 Planning for Sustainable Development (Content)

From their seminal work on planning for sustainable development, Berke and Conroy (2000) concluded that only ten of the thirty local plans in the USA that they analysed incorporated principles for sustainable development. The work also found that these plans were promoting the common goal of a liveable environment (Kent 1990) and not much about other sustainability principles such as resource protection, place-based economic development and social equity.

Nevertheless, the study gives some relevant insights into planning and plans for sustainable development. Specifically, the authors develop their own principles for advancing sustainability at the local level. Secondly, they point to the need for collaborative planning. Thirdly, they argue “the findings reveals that new, expansive directions must be taken to fundamentally reform how planning practice approaches plan making” (Berke & Conroy 2000, p. 30). Finally, they claim that “the independent effects of the techniques on how well plans promote sustainability principles need close scrutiny and future study”. (Berke & Conroy 2000, p. 30).

An additional analysis of contents of plans was developed by Counsell (1998). In his study the operationalisation of sustainable development is explored using three categories within a sample of structure plans in England. The categories are:

a) Key Themes and Principles. These were selected from the literature and represent themes that should be taken into account if sustainable development is the goal. Examples of these are: critical natural capital, precautionary principle, participation, equity, biodiversity, global stewardship, policy integration, futurity and quality of life.
b) Policy Content. This category explores the way the themes and principles are shaped into policies. Examples of these are: pollution, natural resources, energy, built environment, land use strategy, waste and wildlife and countryside.

c) Procedures. This category explores procedural issues and if particular techniques have been used in preparing the structure plans. These procedures include: the overarching policy, state of the environment report, strategic environmental assessment, and indicators and targets.

It is worth mentioning that within the analysis of plans content, Counsell also provides insights into the process (point c above). Therefore his research can be seen as a link between content and process analysis. The author provides the following findings. In terms of the first category the author found that the majority of the councils fail to adequately reflect the basic concepts associated with sustainable development in their plans. For the second category, the outcome was better than the first category as the majority of plans showed a better awareness of the application of sustainability issues in policy. In the last category, no pattern is evident within the councils; for example, some plans showed no evidence of using any of the techniques, where other plans showed evidence of using all of them. Overall, the findings show an uneven operationalisation of the concept of sustainable development in plan documents.
3.3.2 Planning for sustainable development (Process)

Emphasis in this section is on such process, the core of this thesis. According to Briassoulis (2001), planning for sustainable development can be defined “as a continuous process of designing courses of action to assist spatial systems to achieve and maintain non-declining levels of welfare over time” (Briassoulis 2001, p. 411). An example of this type of planning is the cyclical approach undertaken in Sweden (National Board of Housing 2000).

![Diagram of a cyclical approach to planning for sustainable development](source)

Source: National Board of Housing (2000)

Figure 2. A cyclical approach to planning for sustainable development

This cyclic approach encompass six stages (see Figure 2). First, there is the definition of the planning task; second, the analysis of conditions; third, the identification of key issues; fourth, the development of future images and alternatives; fifth, the impact assessment; and sixth, choosing the strategy. The National Board of Housing,
Building and Planning (NBHBP) expand on the possible interpretations of this cycle as:

“…an approach where planning is conducted in three rounds with a successive shift in emphasis from the analysis of conditions and the formulation of objectives to alternative proposals and impact assessments; it could also be described in such a way that the different stages of the work are conducted parallel to each other with continual checking since it can be difficult to clearly distinguish the different rounds of planning in a complex planning situation.” (National Board of Housing Building and Planning 2000, p. 55).

The cyclical approach therefore assembles different stages into one process of comprehensive planning. It is important to highlight that for each of the stages there is a set of techniques that match its objective (See next section 3.4).

One of these techniques is strategic environmental assessment (SEA). Its role is to identify choices of direction at early stages in a plan and then to evaluate these alternatives, all under a framework of sustainable development; like in the case of the NBHBP (2000) or in Counsell (1998). In addition to this role, SEA can also offer a link to what Berke and Conroy (2000) considered the fourth characteristics of sustainable development, a “dynamic process”, due to the processes it promotes, such as public participation and review of plans (see section 4.2.2. Reporting).

As a result, from these two perspectives, SEA can be seen as an important procedural tool that is part of wider planning process (cyclical approach to planning) and
additionally it can be used to explore the dynamic characteristic of sustainable development generated from plan documents. The present research will argue that the use of SEA can aid in the formulation and application of plans for sustainable development from a technical perspective.

To conclude this section on planning for sustainable development, it has been said that there are two approaches for this type of planning, one focusing on content and the other one on process.

From the ‘content’ approach, it is concluded that the principles promoted in local plans are limited to the goal of a liveable environment (Berke & Conroy 2000), where other sustainable development goals and themes have a long way to go in terms of their operationalisation (Counsell 1998). In relation to the reasons why this operationalisation has not occurred, Norton (2002) quotes several authors who conclude that sustainability has not been fully considered due to reasons such as: “local officials do not recognize the need to incorporate sustainability into their land use planning and policy-making; do not know how to do so (i.e. lack of technical capacity); lack the necessary financial and/or administrative capacity to do so; or lack the commitment to do so” (Norton 2002, p. 7) (Researcher’s emphasis).

It is the lack of technical capacity in the planning process that this thesis concentrates on. From the ‘process’ approach, it is worth noticing the use of comprehensive planning as a way to plan for sustainable development (SD represented by the circles inside the ‘house’, Figure 2). Sandercock (1998) offers an explanation of why rational comprehensive planning is still used: “Its attraction is that it offers decision rules that
are logical and clear. It also merges with the economist’s paradigm of rational resource allocation” (Sandercock 1998, p. 88). It is argued in this research that techniques such as SEA are of value for comprehensive planning, and hence can increase the limited technical capacity presented in the planning process.

In the next section, following the line of argument of the relevance of techniques in planning for sustainable development, the research will present and expand on some of these techniques.

### 3.4 Strategic policy tools for sustainable development

The report *Planning with Environmental Objectives: A Guide (2000)* in addition to introducing the cyclical approach, presented above, also provides an example of the tools that might be part of a planning process for sustainable development (see Figure 3).
From Figure 3 several conclusions can be drawn. First, one technique can be used in more than one stage. Second, some techniques are more suitable than others for specific stages. And third, every stage uses a tool or technique.

As it has been said before these tools apply to different stages and circumstances, and since the sample to be analysed in this research correspond to strategic plans, then the most suitable tools in relation to ‘strategy’ are SEA, scenario techniques (i.e. backcasting), GIS and Planning Indicators.

The National Board of Housing (2000) presented the following definitions for these four tools:
a) Geographical Information Systems (GIS) “is a computerised system for the handling, analysis and presentation of geographical or site-bound information. The concept of GIS covers software, hardware, data, the necessary administrative organisation and the users” (p. 67).

b) Planning Indicators. For clarity purposes, this definition is worth presenting it in relation to the DPSIR (Demand-Pressure-State-Indicators-Response) indicators. Thus, the DPSIR indicators have the characteristic of being primarily aimed at detecting and tackling specific problems. “They are more operatively aimed at the current situation and the near future” (p. 76). On the other hand, “due to their clear connection to plan alternatives and choice of action, planning indicators are more focussed on the long term. They are more concerned with the prediction and prevention of environmental problems in comprehensive planning” (p. 76).

c) Strategic environmental assessment (SEA) “is the collective name for methods and tools concentrating on the analysis of the environmental impact of policies, programmes and plans” (National Board of Housing Building and Planning in Sweden 2000, p. 63).

d) Scenario Techniques. “Scenario techniques can be used both to generate scenarios in the world around us in a global perspective and then, on the basis of these, formulate alternatives and future images of a region, community or a district within the community” (National Board of Housing Building and
Planning in Sweden 2000, p. 57). Moreover, the most well known scenario techniques -helpful for building policies- are forecasting and backcasting. The latter providing a unique and useful perspective when aiming for sustainable development in long term strategies.

From these four tools SEA and Scenario Techniques are selected for further expansion in this research due to their potential to be used with respect to policies for sustainable development; GIS and Planning Indicators even though valuable, can be part of these tools.

3.4.1 Strategic environmental assessment and planning for sustainable development

This section examines SEA as a procedural tool for sustainable development. First the research describes the background of this tool. Second, some of its general characteristics are described. Third, SEA links to other sustainability tools are made.

Background

According to the literature (Dalal-Clayton & Sadler 1998; Fisher 2002b; Nilsson & Dalkmann 2001; Partidario 2000), the foundations of SEA were laid in the U.S with the National Environmental Policy Act (NEPA) in 1969. This requirement to include environmental concerns into decision-making in a systematic way soon acquired international recognition with the label of Environmental Impact Assessment (EIA). The scope of the tool then was to be applied in projects. This limitation to work on policies, plans or programmes generated an evolution of SEA in first instance, after
noticing that “EIA started too late, ends too soon, and is too site-specific” (Shepherd & Ortolano 1996, p. 322).

In hindsight SEA has evolved from two different streams: one refers to the limitations of EIA to carry out sound environmental decision making at strategic levels; and the other one points to the consideration of SEA as a tool which can support the development of policy and planning practices with a stronger environmental component and is able to perform a critical role in promoting sustainable development principles (Partidario 2000).

This evolution can also be seen from a rational point of view. For example, Dalal-Clayton and Sadler (1998, p. 34) said that the rationale for SEA “falls into three categories: strengthening project EIA; advancing the sustainability agenda; and addressing cumulative and large-scale effects”.

Strengthening EIA refers to several aspects, for example the tardiness at which EIA is applied in the process of decision-making. By the time an EIA is undertaken the type of development that is going to take place has already been decided and probably with little or no environmental analysis. SEA occurs before major decisions therefore it is possible to include environmental considerations that can make a difference in the policy, plan or programme.

Another aspect derived from this earlier application of SEA, is that it helps make the following EIAs more efficient. Time and effort involved in their preparation will be
much less and possibly it could also reduce the need for many project-level EIAs (Dalal-Clayton & Sadler 1998).

Advancing sustainability is a continuation of SEA’s earlier application. If SEA is “applied systematically in the ‘upstream’ part of the decision cycle and to the economic, fiscal and trade policies that guide the overall course of development, SEA can be a vector for a sustainability approach to planning and decision-making…” (Dalal-Clayton & Sadler 1998, p. 34).

In terms of addressing cumulative impacts, an SEA considers a broader range of impacts than the project level alone. For example, the effects which are the end result of multiple actions and stresses that cut across policy and ecological boundaries, could be best addressed by SEA in principle (Dalal-Clayton & Sadler 1998).

**General Characteristics of SEA**

**Definition**

There are many definitions for SEA, three of them will be presented here, from the more general to the more specific. This selection represents a sample of how different these definitions can be, but the choice also links to previous and further parts of this research (i.e. comprehensive planning, futures studies).

Therivel et al. (1992, pp. 19-20), state that “SEA can be defined as the formalized, systematic and comprehensive process of evaluating the environmental impacts of a policy, plan or programme and its alternatives, including the preparation of a written
report on the findings of that evaluation, and using the findings in publicly accountable decision-making.”

Shepherd and Ortolano (1996, p. 321) state that “strategic environmental assessment (SEA) has emerged as a way to integrate environmental impact assessment and comprehensive planning to promote urban sustainability”.

Trumbic (2001, p. 9), said that “SEA is a systematic evaluation and forecasting process of environmental impacts of policies, plans and programmes”.

From this set of definitions it is possible to infer some characteristics of SEA relevant to this research. First, that SEA is a systematic and comprehensive process. Second, that it promotes sustainable development through comprehensive planning. And third, that futures tools, such as forecasting, are needed for the adequate evaluation of environmental impacts.

SEA as a process

SEA has several stages. Fisher (2002b) says that first, objectives and possible development alternatives are identified. In other words, selecting the goal of the policy, plan or programme (PPP) and the alternative means for achieving this. Then, in the screening stage, the need for an SEA will be determined by comparing the previously identified objectives with the impacts of the policy, plan or programme. Once this is completed, in the next stage, scoping, the key environmental issues that are potentially affected by the PPPs are identified. This is followed by an assessment
report given to the authorities to provide them with information relating to the environmental impacts and consequences. This report should be reviewed in order to check its quality and adequacy. Once the PPP is in its developing stage, monitoring has to be carried out to follow the actual effects of the PPP and to determine if mitigation measures are necessary. Finally, consultation and participation are considered to be essential in the assessment process.

This is graphically characterized below (Figure 4). It is worth noticing that if the step-by-step representation below looks similar to the model of systemic planning derived from the scientific method (Figure 1), it is because environmental impact analysis is considered a current planning technique belonging to the systems approach (Allmendinger 2002).

Source Therivel et al. (1992)
Figure 4. A step by step representation of the SEA process.
It is important to notice that “although a step-by-step methodology is proposed, these steps do not necessarily occur in strict sequential order. Furthermore the steps in the procedure should be regarded as components of an iterative process, requiring comment by the public and feedback into the process” (Therivel et al. 1992, p. 145).

The position in this research is to use both of the main approaches to SEA: first, as an improvement of a project EIA; and second, as an improvement on policy development (Therivel et al. 1992). In other words the idea is to develop both a procedure and a policy development framework for sustainable development.

However, an SEA procedural approach does not guarantee the adequate inclusion of environmental concerns even though there are successful examples in the Netherlands for waste management, electricity supply programmes and land use plans (Fisher 2002b). For example, Partidario (2000) advocates a framework made of a series of questions the aim of which to check at each decision-making point the causes and effects that may determine significant impacts at following stages. The author states that “a simple report on such checks and balances is all that may be necessary.”(Partidario 2000, p. 658)

SEA and sustainable development

Sadler (1996, p. 141) states that “the purpose of SEA is to integrate environmental and sustainability factors into the mainstream of development policy making as called for by the Brundtland Commission and Agenda 21.” At this Commission the concept of sustainable development became well known world wide. The relevant part of the
Agenda 21 in relation to plans is that it calls on countries to develop a national sustainable development strategy. In this regard Sadler states that “these ‘green plans’ differ in aims, scope and approach but typically provide a broad frame of reference for reconciling economic development with environmental protection” (1996, p. 30). Therefore is at this strategic level that SEA on policies could guide countries into an improved path for development. In this regard Fisher (2002a, p. 5) concludes “that systematically structured planning procedures still hold great promise at strategic levels of decision making, particularly for achieving set policy goals and leading to planning for sustainable development”.

Apart from ‘green plans’, there are other benefits in regards to sustainable development that can be added which have been mentioned under the rationale of SEA. These are the incorporation of sustainability considerations at the policy source by being proactive and not reactive to the impacts, identifying cumulative impacts, and streamlining project EIAs (Sadler 1996).

Before going into the section on links to other tools for sustainable development planning, it is worth going over the main points of this SEA section. SEA as a procedural approach is selected even though it has many interpretations. Its selection as a procedural tool for further analyses is because an SEA step-by-step procedure allows a more comprehensive understanding of the different steps included in the process, and hence an analysis on the techniques needed at each step is more manageable. SEA offers benefits to the environment in terms of including environmental impacts that were not considered before due to their magnitude, such as cumulative impacts. These impacts will come into effect in the future, therefore the
need to first include them in a proactive way in the decision-making process; and second, the need for tools which can inform us of the future, such as ‘futures tools’. The next section will show the connection between SEA and the different tools linked to it.

**SEA links to other sustainability tools**

Dalal-Clayton and Sadler (1998, p. 15) describe the link between SEA and other tools as a result of looking for ways of complementing SEA. They state that “SEA practitioners are increasingly drawing from experiences with other assessment and planning approaches. For example, the construction of environmental scenarios (future forecasting) is a potentially important approach for development planning and in policy-making, and is receiving increasing attention as an important element of the SEA ‘tool box’.”

Although the idea of SEA complemented by other tools for policy making and planning is not new, it has not been discussed widely (Finnveden et al. 2003). Finnveden et al. (2003, p. 94) stated that “challenges related to what methods and analytical tools to use in SEA remain and need more attention”. Figure 5 gives a representation of what this integration with other tools might look like.
The aim of Finnveden et al.’s study was to examine how a variety of analytical tools can be used within the SEA process. Examples of these tools are economic valuation methods, life cycle assessment (LCA), risk assessment, surveys, future studies and backcasting. They conclude that the tools were useful in two areas: in identifying and modelling environmental change (i.e. futures studies, LCA); and on the valuation stage (i.e. economic valuation methods and multi-attribute analysis).
For the purposes of the present research the main benefit from Finnveden et al.’s (2003) figure is to understand how each of the steps of SEA can be complemented with a set of tools or techniques. Of particular importance for this research are the tools determining the goal of the process, since it is argued that the future has not been given enough consideration in current practice, so that alternatives techniques and outcomes could be offered before the selection of a path towards sustainable development is taken. To illustrate this divorce, Myers and Kitsuse (2000, p. 2) quoted Isserman (1985) saying that “…planning has lost sight of the future…Planning voluntarily is sacrificing its role as visionary and idealist and is abandoning its responsibility to be a source of inspiration and ideas about what might be and what ought to be”. This is the reason why backcasting and futures research are selected over the other tools.

The aim of the next section is to expand on futures research specially backcasting (a tool that uses future objectives independent of present trends and situations), as an alternative technique to manage the future, which can offer a more appropriate process to deal with long-term planning.

### 3.4.2 Backcasting

As with SEA, backcasting is a helpful tool for sustainable development planning. Its main role in this research is to complement SEA (i.e. Figure 5) when planning for sustainable development. Therefore the central concern of this section is to present the theoretical support underpinning the link between SEA and backcasting. This section is divided in three parts: first, the general definition and evolution; second, the process; and third, the relationship with sustainable development.
Explanation and Evolution

This method is concerned with how desirable futures can be created, rather than what futures are likely to occur. In backcasting, one envisions a desired future endpoint, and then works backward to determine what policy measures would be required to achieve such a future. The end result of a backcasting study is alternative images of the future, thoroughly analysed as to their feasibility and consequences (Dreborg 1996; World Future Society 1999).

Backcasting is a methodology for planning under certain circumstances. In the context of sustainable development, this means commencing with a description of the requirements that have to be met if a society is to successfully become sustainable. Then the planning process proceeds by linking today with tomorrow in a strategic way, i.e. what shall we do to get there? (Holmberg & Robert 2000).

Figure 6 from Dreborg (1996) shows the location of backcasting in regards to other approaches and sustainability. The vertical axis indicates if the case study has achieved sustainability or not. Dreborg considers today’s society as generally not being sustainable. The horizontal axis indicates the aim of the studies in terms of time. The horizontal axis divides the studies in terms of time.

The Figure presents four types of studies. The ‘A-Directional studies’ provide measures in accordance with the natural environment but they lack information about how close to sustainability they are. The ‘B-Short term studies’ use official short term
goals and try to find ways to achieve them. The ‘C-Forecasting studies’ aims at providing long-term information. These studies fall short due to their restrictive presuppositions and their lack of alternatives for changing. The ‘D-Backcasting studies’, also aiming at long-term analysis, have the potential for complying with sustainable development requirements.

The major distinction between A, B and C types, and the D type is the promotion of major changes in the D type; whereas the former are limited in scope (Dreborg 1996). The present research focused on the ‘D-Backcasting studies’ is considered closely related to the attainment of sustainable development through major changes.
The process of backcasting

Two approaches to backcasting can help us uncover these changes. First through conventional backcasting (Figure 7), where the end-states (i.e. goals) are the inputs of the process; and second, through the ‘second generation’ backcasting, where the end-states are the output.

![Diagram of the process of backcasting](image)

**Source:** Robinson (1990)

**Figure 7. Conventional backcasting**

Robinson (1990) presents the conventional process in seven stages. The first and second stages provide direction of the exercise in terms of its objectives, goals, constraints and targets. In terms of the targets, these are preferred to be quantitative as this provides a point of reference for the scenario analysis. Stage three, examines the
present system in order to identify trends and major driving forces of society. It also
provides a description of the system under study, particularly through the examination
of production and consumption processes necessary to understand the connections
between these processes and human needs. Stage four sets the context where the
system is located through a description of the exogenous variables. Stage five, the
scenario analysis, is the core of backcasting. Here scenarios that link the present
conditions with the goals and constraints from the initial stages are developed. It is
essential at this stage to ensure consistency in the scenarios. This is achieved through
iteration of the analysis. Stage six provides the consolidation of results, the analysis of
social, environmental and economic impacts, and the comparison of the goals from
the initial stages with the results and impacts, respectively. Finally, stage seven
represents the connection to the policy process. Here the behavioural and institutional
responses necessary to implement the scenarios are determined along with the policy
measures aimed at influencing the driving forces. According to Robinson, in order to
make this stage fruitful, the client, the commissioning agency or the relevant public
should be included.

This process can also be described in three stages (Akerman 2005) namely:
identification of the problem and setting of targets; outlines of future images in which
society meets the targets; and analysis of paths from the present to the future images.
Kuisma (2000) provides further interpretations of this process. For any of these cases
the focus is the same. Robinson (2003, pp. 848-9) states that in traditional backcasting
attention “is placed on articulating the nature of the desired end-point conditions at
the outset and then analysing how those may be achieved”.
Additionally, in traditional backcasting the values and preferences to choose and assess the future scenarios is determined by the research team, through a formal study of what stakeholders want or from the values of the analyst. This issue gave rise to second generation backcasting. For the latter, the values and preferences are provided by various stakeholders or the public at large at the early stages of the process (Robinson 2003).

This differentiation between traditional and second generation backcasting causes a shift in the focus of the process. It shifts from articulating future conditions and linking the present with the selected future, towards an emphasis in the choice of pathways to achieve the scenarios (Robinson 2003). The way choices are generated in the second generation backcasting are of particular relevance to this research due to its resemblance to a dynamic process (see section 4.2.1.1).

The second generation backcasting process coined by Robinson (2003) relies on four pillars: a general approach to backcasting; interactive social research; interface driven modelling; and backcasting as social learning. In terms of backcasting, the main difference with more conventional approaches is the use of software designed to be ‘fun to use’ (as in a computer game) and ‘true to life’ (as an academic model). With respect to interactive social research, it plays a major role since its development is justified in the need to include public and stakeholders to provide acceptability of future likely changes in society. Also it provides the users with an understanding and learning of the trade-offs associated with their different choices. The interface driven modelling refers specifically to model design. This is starting with a problem, designing an interface that will tackle the problem, and then designing and building
the models that will support such an interface; just like computer games (Robinson 2003). Finally, backcasting as social learning refers to the social setting where scientific and lay-knowledge interact and generate emergent concepts and futures. This learning process can also be seen when the user is deciding on his/her choices in the model.

In general terms, the second generation process presents two highlights: first, as a result of the inclusion of the general public from early stages of the process, emergent concepts are put forward; second, its reliance on interactive software generates societal learning. The next section draws on these features and expands on the relationship with sustainable development.

**Backcasting and sustainable development**

With respect to learning and participation, Meppem and Gill (1997, p. 133) state that “recognising and integrating diversity of perspective will always be a difficult though a key part of the process towards the realisation of genuinely holistic sustainability. This anticipates an evolving process where learning leads to a greater level of understanding of the complexity of the problem”. It is claimed in this research that apart from characteristics such as learning and public participation, alternative goals (through backcasting) that can lead the process towards sustainable development are also necessary.

In terms of complexity, backcasting can also be defined as a planning methodology that is particularly helpful when problems at hand are complex and when present
trends are part of the problem. If applied in planning towards sustainability, backcasting can increase the likelihood of handling the ecologically complex issues in a systematic and coordinated way (Holmberg & Robert 2000). In line with this claim, Dreborg (1996) mentions that backcasting is particularly useful when:

- The problem to be studied is complex
- There is a need for major change
- Dominant trends are part of the problem
- The problem to a great extent is a matter of externalities
- The scope is wide enough and the time horizon long enough to leave considerable room for deliberate choice

An example of complexity is described by Banister et al. (2000) in their work on transport policy in Europe. They stated that

“when addressing the problems of sustainable development and sustainable transport, it is not just a transport problem, but one that links in with decisions made in other sectors. Similarly, the impacts are not all related to transport alone, but they also have impacts on health, the vitality of urban areas, quality of life, biodiversity, and local ecology.” (Banister et al. 2000, p. 85)

Notice how addressing a problem finishes up being the analysis of several problems. In practice, the majority of backcasting exercises have focused on a relatively small sample of sustainable development areas. For example, in Sweden where it first started, the emphasis initially was on the energy sector (Johansson & Steen 1978);
then it moved to the transport sector (Banister et al. 2000). Lately it has also been
dealing with households (Carlsson-Kanyama et al. 2003) and with regions and cities
(Lowendahl, Swahn & Eek 2005; Timmer & Seymour 2005). These diverse works
show the diffusion of backcasting into different areas of society; the use given to this
tool in the present research, even though it is also embedded in sustainable
development, it is not related to resource use (environment) but to planning (i.e.
backcasting’s potential for plan making).

In brief, there are many benefits from backcasting in relation to sustainable
development and that are the concern of this research. Firstly, that this tool is suitable
for planning sustainable development due to the latter complex nature. Secondly, it is
a helpful tool when a major change is needed (i.e. current environmental crisis could
be an indicator of this time). Thirdly, it also has the long term scope needed for
substantial measures to take place: Robinson (2003, p.4) notes that “in order to permit
time for future significantly different from the present to come about, end-points are
usually chosen for a time 25-50 years into the future”. Fourthly, it drives dynamic
processes, for example: learning from a set of scenarios, as in the second generation
backcasting approach; or more directly, the fact that this tool involves a sequence of
steps from today’s decision to the future’s selected end point.

3.5 Overview

So far in this research the position of the researcher has been set as a policy analyst
influenced by systems theory and futures research. This chapter has described two
ways of planning for sustainable development, one focus on the content and the other
on the process. The latter one is selected as the more manageable way to analyse the different steps involved in planning for sustainable development, as in the example of National Board of Housing, Building and Planning in Sweden. In terms of the tools for sustainable development SEA is presented as a tool that connects comprehensive plans with the “dynamic process” of sustainable development. As a procedural tool for sustainable development it uses a different set of tools for each of its stages. Backcasting being one of these tools is selected due to the benefits it provides for goal setting. This dissertation argues that if these tools could complement each other, and can be used in a way to enhance the inclusion of sustainability principles by planning practitioners in comprehensive plans.

The next chapter focuses on defining alternative ways of understanding what is a “dynamic process” with the aim of giving planners alternative tactics to enhance the inclusion of sustainability principles in planning, especially in plans. It is worth mentioning that this research believes that the answer to this inclusion lies with a stronger emphasis of techniques rather than on political determinations.
Chapter 4

SUSTAINABLE DEVELOPMENT

AND “DYNAMISM”

The previous chapter presents the relevance of planning tools for sustainable development, particularly SEA and backcasting. In this chapter the concept of ‘dynamic process’ or ‘dynamism’ (the preferred term in this thesis), is presented, in the first instance as a joining of SEA and backcasting under one framework. The idea behind the creation of a framework for long term planning is that the practitioner is driven to think in two points in time: the future and the present.

In the second instance, the idea of putting this framework into practice generates the need to explore in detail, elements of these tools that aid in the operationalisation of sustainable development statements. To be consistent with the technical perspective of this research, this exploration was undertaken in relation to tools that can cause ‘dynamism’ to emerge in plans, and specifically in plan documents.

As a result, this chapter has five sections. The first section is dedicated to the origin of ‘dynamism’ as a consequence of the SEA-backcasting framework. The second section explores the different elements so derived. The third section presents results of some of these elements in practice. The fourth section provides a representation of how all criteria work under the idea of dynamism. Finally, the fifth section presents an
overview of the main ideas of the chapter and also of previous chapters and sets the arena to enter into the methodology of the research.

4.1 Dynamism

The origin of this framework is found in Rodriguez (2002). It is based on the idea that tools and concepts for sustainable development relate to each other and can form a general framework for sustainable development (Robert 2000). The framework suggests that if environmental problems can be represented as a system, then tools that can perform together as a system, i.e. SEA and backcasting, would be the best fit to help solve the problem (Rodriguez 2002). Such a ‘system’ is shown in Figure 9. In the proposed system, the practitioner considers the optimal solution provided by backcasting, and the assessment through SEA of the most appropriate solution towards the future.

Rodriguez (2002, p.10), states that “the idea behind this interpretation is that SEA will forecast, while backcasting illustrates the way to achieve the future vision”. In other words, once backcasting has provided the framework with more sustainable goals/futures, the different alternatives to reach them will be used as input for SEA. SEA will provide an assessment of the alternatives based on the environmental baseline of the PPPs (policy, plan or programme). The result (c) in Figure 8, instead of a business as usual alternative, has the advantage of having gone through an environmental analysis and it provides a link from the present into the future.
Note. Where (a) is “Present Time”; (b) is the “Business as Usual” scenario; (c) is the “Desirable-achievable future”.

Figure 8. Strategic systemic approach

Another perspective is possible. Rather than thinking of a solution at one point in time for a determined environmental problem (i.e. ‘c’), we can use the same set of tools and provide a solution to every new emergent situation. For example, if our perception of sustainability changes, then the framework has the capacity to provide matching alternatives for these goals.

Flood (1999), using systems thinking, provides an example of an organisation that experimented with emerging solutions to changing circumstances in its desire to improve results. This was to be achieved by the implementation of a strategic policy. This policy was the product of government directives and messages from the community and the desire to use a community based approach that will allow for dialogue, participation, contextualisation, challenging, generation, learning and even the transformation of participants. This generated a situation where “senior management had to create space in which the workforce could enjoy every
opportunity to learn a way into the future” (Flood 1999, p. 166). Figure 9 represents this mechanism.

Source: Adapted from Flood (1999)

Figure 9. Learning a way into the future

The idea of this Figure is to aid the representation of the policy mechanism. The original figure was adapted so that the connection of the present framework with the SEA-backcasting framework is facilitated.

The starting point is represented by $a$, an achieved but undesirable result, and later by $d$ and $g$. They indicate how successful the process of implementation has been. The points $b$, $e$ and $h$ describe the goals of the policy to be attained by projects, points $c$, $f$ and $i$. The philosophy behind the mechanism as explained by Flood (1999) “was to realise that (the policy) was not an end point in itself. As I saw things, (the policy) was no more than an agenda of issues and dilemmas to be introduced to the workforce.
now, with the aim of facilitating learning all round about what actions might be
taken” (Flood 1999, p. 166).

From this representation several ideas arise in relation to planning for sustainable
development that could be applicable to the previous SEA-backcasting framework.
For example, sustainable development could be seen as a never-ending process which
is always adjusting over time, due to emerging environmental problems or concerns
relating to a specific community (Meppem & Gill 1997). There should be continuous
planning seeking to achieve the desired outcome. In order for this to happen,
evaluation or learning processes had to occur so that the next set of projects are closer
to the goals. This mechanism was discussed by Faludi (1973) when he compared the
way planning agencies work with the human mind; he argued that both function on
the basis of a learning system necessary in a changing environment. For Faludi (1973,
p. 60) “a system capable of changing its ends is a learning system incorporating, as it
does, a memory, as well as a feedback system”. Figure 10 shows the new SEA-
backcasting framework once these ideas are included.
The dynamic process starts with the selection of a preferred future (Image 1, or goals in Flood’s model) then backcasting, which involves working backwards from this preferred future. This will set a path from the sustainable future (point \(a\)) to a potential present (point \(b\)). Point \(b\) will be the location of society if we were following a sustainable course. Point \(c\), the ‘real’ current situation (less sustainable), should aim to be \(b\). The movement from \(c\) to \(b\) will occur through an assessment of alternatives through SEA. It is worth noticing that, even though Figure 10 is not explicit, SEA occurs in time. In the Figure this happens between points \(c\) and points \(b\). Within this
process different scenarios will be assessed with the intention of selecting the best possible option.

After an option has been chosen and put in practice, most likely (due to the uncertainty of future events) once implemented in real life it will not proceed as planned, and therefore it will deviate to point c’. At this moment, the results have to be reviewed (due to feedback) and the process will start again, but with the novelty that now the goal will be Image 2. The new image is the product of a change in future circumstances (environment, society, economy), which will affect the community’s understanding of sustainable development.

Now that the dynamic process between the tools has been outlined, it is worth mentioning what the images or goals mean. In relation to this research, the image represents sustainability. Sustainability is considered to be particular to a context, in terms of society and time. For example, Berke and Conroy (2000, p. 23), define sustainable development as “a dynamic process in which communities anticipate and accommodate the needs of current and future generations in ways that reproduce and balance local social, economic, and ecological systems, and link local actions to global concerns”. Therefore, the concept, and hence the goal and image of the framework, will change over time.

In brief, SEA and backcasting have developed into a dynamic framework that provides futures knowledge to practitioners about possible ways to move forward to the future in a way according to sustainable development. Each time the selected way
or path for the future is ‘not working’, it should be reviewed so that a new path can be established and thus keep society on track for sustainability.

However, this representation of ‘dynamism’ is still distant from an operational concept for practitioners. Therefore the next section explores ideas and concepts that can also generate ‘dynamism’ in their conceptualisation and implementation. The next section does not intend to present a comprehensive set of ‘dynamism’ concepts, but an indication of the ones that could aid the operationalisation of sustainable development in plan documents.

4.2 Examples of Dynamism in planning

This section is presented in two parts. The first part is an elaboration on the relevance of the future in plans (backcasting’s offshoot). The second part of this section builds on SEA as a procedural tool that can spark ‘dynamism’ from its report (Berke & Conroy 2000). Shepard and Ortolano (1996), and Maclaren (1996) also noticed that the information provided by sustainability reports generates ‘dynamism’. This is the case because processes such as learning or plan reviews (examples of ‘dynamism’) are the consequence of using such information by the community.

4.2.1 Relevance of future in plans

With backcasting, the framework presented above reinforces planning with the inclusion of futures information. This section expands on the diversity of ways it can be incorporated in plans. First, an example of developing a future image is sketched, indicating that the future we are aiming at is non-deterministic and dynamic. And
second, in supporting the relevance of tools such as SEA and backcasting to develop innovative frameworks for sustainable development, this research argues that techniques used to provide information about the future are as important as the goal itself. Therefore this part gives an indication of concepts and techniques that could be useful in including sustainable development features in plan documents.

4.2.1.1 Sustainable development, community participation and dynamism

The aim of this section is to point at the dynamic nature of the future. For example, the images/goals of the future in the backcasting framework depicted are meant to be representations of sustainable development. These images allow for evolution because “there is no single ‘best’ definition of urban sustainability, since different communities are likely to develop slightly, or even significantly different definitions, depending on their current economic, environmental, and social circumstances and on community value judgements” (Maclaren 1996, p. 186). Figure 11 describes how these images are constructed through community participation.
The first step, Community Participation and the Practitioner, points at the necessity of including community in planning so that the planning process benefits from the intrinsic differences in the community, such as gender, race, age and income (Sandercock 1998). The practitioner plays the role of the facilitator, providing the means for the community to participate in planning. The second step, is similar to backcasting second generation (see Types of Backcasting). For this type of backcasting, a community is provided with tools (i.e. interactive software) to produce a preferred future. This required the community to engage in a learning process with policy paths, where one can see and change the paths selected until a preferred future is selected, hence step three (Robinson 2003). Strömgren (2004, p. 15) refers to this as communicative or collaborative planning as “the problems to be solved and their solutions are not found ‘out there’; they are created through collaborative communication”. The main characteristic of this future is that it is unpredictable, just
like conceptions of sustainability which are the product of a social learning process (Robinson 2003).

Meppem and Gill’s (1997) definition of sustainability, presents a similar view when they state that:

“sustainability describes a state that is in transition continually:

• the objective of sustainability is not to win or lose and the intention is not to arrive at a particular point.

• Planning for sustainability requires explicit accounting of perspective (world view or mindset) and must be involving of broadly representative stakeholder participation (through dialogue).

• Success is determined retrospectively, so the emphasis in planning should be on process and collectively considered, context-related progress rather than on achieving remote targets. A key measure of progress is the maintenance of a creative learning framework for planning.

• Institutional arrangements should be free to evolve in line with community learning (equal to step two above).

• The new role for policy makers is to facilitate learning and seek leverage points with which to direct progress towards integrated economic, ecological and sociocultural approaches for all human activity” (Meppem & Gill 1997, p. 134)
In relation to point three of this definition, the present research, as opposed to Meppen and Gill, claims that it is central for sustainable development planning to have a target working towards an objective-led approach (i.e. step three above), as exemplified by the SEA-backcasting framework. Having said that, it could also be said that this framework includes a learning process (by the way it moves into the future), like the one mentioned by Meppen and Gill (1997) and Robinson (2003). Therefore this framework holds that both of these views can be combined to establish an intermediate position.

In summary, sustainability, learning and community can all be considered part of a dynamic process necessary to keep society in search for ways to become more sustainable.

4.2.1.2 Sustainable development and futures information

To keep society on the right track, apart from knowing where to go, it is also necessary to produce and provide appropriate information to the community for their analysis and discussion (Kent 1990). Central to the subject matter are the techniques that produce this information. Roberts (1985, p. 13) states that “the different techniques that a planner uses are his tools, and, like any similar equipment, they should be efficient, labour saving, reliable and fit for their particular purpose”.

Consequently, the different concepts are divided into two groups. The first group points at tools and concepts that provide futures information to construct the target (vision) of the plan document. This is different from what the previous section described, in the sense that this section focuses on the information or data needed to
develop the vision, as opposed to describing the actors involved in the process. The second group of concepts deals with information directly linked to operationalisation of sustainable development in the plan document.

Dealing with futures information

In the SEA-Backcasting framework, images (visions) of the future are provided as goals of the process. The NBHBP (2000, p. 60) defines vision in the planning context as “a desirable future situation which is attainable in the long term”. Myers and Kitsuse (2000) elaborate on three methods for representing a vision: visioning, scenario-writing and persuasive story telling. The aim of the three methods is to reduce complexity while providing multiple perspectives for consideration. They provide the following definitions for the methods:

**Visioning**: “a collaborative process whereby citizen’s desires for their city or region are melded into an image of the locality in its ideal future state” (Myers & Kitsuse 2000, p. 19).

**Scenario-writing**: “simple stories about events that would have an impact on planning decisions if they occurred” (Myers & Kitsuse 2000, p. 21). There are also two types: the state scenarios, where a vision is developed but without mentioning how to achieve it; and the process scenarios, which in contrast centres on the process on how to achieve the vision. Backcasting is considered an example of this latter method.
**Persuasive stories**: these are also stories but they “are not meant merely to prepare their audience for the future, but to convince people to adopt the storyteller’s preferred course of action” (Myers & Kitsuse 2000, p. 25).

In relation to this study the use of scenarios, particularly backcasting, was more relevant due to its benefits in linking the future with the present and as a suitable approach for sustainability. Also, visioning often lacks the means of accomplishing goals, and persuasive story-telling focuses on communication rather than analysis (Myers & Kitsuse 2000).

One more method in dealing with the future is forecasting. Wachs (2001) states that forecasting is almost the opposite to visionary thinking as presented by the methods above. The author claims that “forecasts provide dry, technocratic images that hardly have the power to motivate committed responses” (2001, p.369). A reason could be the lack of participation from the community in these exercises and the high degree of technicality and secrecy involved. According to Wachs (2001, p.371), “forecasters have frequently been criticized for failing to enumerate their assumptions and for stating the results of their forecasts without presenting measures of the forecast’s sensitivities to changes in the input parameters”. Nevertheless, plans today serve the function of accommodating forecasts of changes in issues, such as population, travel, residential needs, office space and the like (Wachs 2001).

However, these plans pose a danger in relation to responsible conclusions. This danger starts with the assumptions of the starting forecast and tends to build up when these data are used as input for a following forecast (Wachs 2001). For example, birth
rates and death rates are used as an input into population forecasts, which in turn is an input for employment growth. This information constructed by experts, who decide on the assumptions and uncertainties behind the data, is given to the decision maker with a probability of occurrence. As a result the “danger to the decision maker derives from this disconnection. If he decides to use the forecast he does not know what risk assumptions enter his decision process. He is no longer in a position to see the different possibilities as they could unfold” (van der Heijden 1996, p. 103).

The danger with assumptions can also be reflected in the vision. In this regard, the NBHBP (2000, p.61) states that (for visions): “efforts of forecasting are often problematic. One reason is that the assumptions on which the models are based are rarely relevant in a longer time perspective”. Assumptions can be of varying relevance over time. Stiftel and Boswell (1999, p. 92) state that “the further an analysis moves from assumptions of certainty, the more complex that analysis must become”. Thus, it is possible to infer that ‘certainty’ in this case refers to proximity to the present whereas ‘more complex’ means further into the future.
Figure 12, presents a link between methods of dealing with the future and uncertainty. The closer one is to the present, the lesser the presence of uncertainty, and the more useful forecasting is as a tool. The further away from the present, the higher the uncertainty, and the greater the relevance of hope. Scenarios are presented here as tools to deal with certain amount of uncertainty into the future.

Figure 12 could also be complemented by Stiftel and Boswell’s (1999, p. 92), definitions of assumptions. For the first area, (F), assumptions will be defined as ‘certain’, meaning “those futures that are known to be unavoidable given very fundamental assumptions”. For the second area, (S), assumptions will be defined as ‘risk’, which refers to “those futures that can be predicted with estimable probabilities”. Finally, area (H), is where assumptions are ‘uncertain’, meaning “those
futures whose occurrence depends on phenomenon whose probabilities are unknown” (Stiftel & Boswell 1999, p. 92). In relation to this research, the SEA-backcasting framework captures areas (F) and (S). This also suggests that the plan document, considered through this framework, will need to develop assumptions in relation to the uncertainty of data with respect to scenarios.

From another perspective and directly related to the plan document, these definitions of assumptions from the Figure above raise another issue: the plan time frame. Stiftel and Boswell (1999, p. 93) quote Mandelbaum (1984) in this regard, when the latter defines the “useable present” as “a period of time beyond which either the perceived uncertainties are so great that choice may become paralysed or beyond which the discount rates being applied render costs or benefits effectively equal to zero”. In Figure 13 the useable present will be area F and S, where uncertainties are to a certain degree manageable, and for which a plan document can be developed.

Kent (1964), in developing the characteristics of a general plan for which public debate is central, argues that the selection of the time horizon should be guided by careful analysis and judgment. For example, environmental protection might not be well represented in the (F) area, whereas the middle range (S) area could provide a better benchmark. Kent’s aim was to provide plan documents with as much information as possible that could benefit debate and hence the actual plan.

In brief, information regarding the future is central to construct plan elements, such as vision, forecasts, scenarios or a plan time frame. The aim of this subsection was to support the need for appropriate futures information in plan making, and show how
they are part of a dynamic process embedded in a time frame. As Cole (2001, p. 372) asserts: “if planners are to embrace the future, their plans must begin with the future”. This acknowledgement of the need for futures information in planning has also been considered as a way to face uncertainty (an element discussed above) since “a futuristic attitude at all phases of strategic planning will help to orient strategic objectives and endow them with flexibility” (Cole 2001, p. 374). The latter is considered by the author as a remedy for uncertainty.

Therefore, in the present research, futures information provides specific benefits but also, on a broader scale, it brings ‘time sequence’ into consideration for plan-making. The inclusion of backcasting into the framework highlights this point, with its relevance on knowing or developing the ‘how to get there’.

Operationalising sustainable development

The previous section claims that futures information is needed to develop a plan document under the SEA-backcasting framework. However, if sustainable development is to be included in the plan document, this research argues that there is a need to consider two more elements: future generations and cumulative impacts.

As mentioned earlier in Chapter 3, future generations is an element of the sustainable development definition. In this regard Stiftel and Boswell (1999, p. 93) state that “one group that can be expected to have views of planning issues that differ from those driven by trend extrapolation and that is likely to be under-represented in plan decision making is the group of all persons as yet unborn”. The main idea driving this
concern is the need for equity between generations. George (2001, p. 100) states that "an activity must be equitable for future generations if it is to be sustainable". By the same token and in relation to plan documents, one expects that the policies proposed will also represent future generations’ interests.

However, even though this topic is common in discussions for the reason we undertake planning (Stiftel & Boswell 1999), this is a concept that has proved difficult to operationalise due to the lack of knowledge in regards to the needs and values of future generations (Stiftel & Boswell 1999). Nevertheless, due to its continuous relevance in planning for sustainability, this is a concept that should be translated into useable ideas in plan documents.

Another concept relevant to sustainable development and mentioned in Chapter 3, is ‘cumulative impacts’. While ‘future generations’ and ‘cumulative impacts’ are both sources of futures information they have different origins: the future and the present, respectively. Therefore, this research argues that the generation and use of data from these two sources also represents ‘dynamism’.

Organisation for Economic Co-operation and Development (OECD) (1996) expresses the need for such a tool, when it states that:

"The pursuit of sustainability will always take place in a climate of uncertainty: we can never know enough about the impact of past developments and current trends on the future. By the time the full extent of the problem is known, however, it may be too late to take preventive..."
measures; even before threat stage is reached urban social and environmental problems may become unmanageable. The cumulative effect of many small changes—for better or for worse—may be modest for many years, but then have a substantial effect; no one will know until many years from now.” (OECD 1996, p. 23)

As a consequence, decisions extending from plan documents should also incorporate this type of information, if the goal is sustainable development.

4.2.2 Reporting

Having identified the ‘dynamism’ concepts related to backcasting and futures, this second part of the chapter will concentrate on the ‘dynamism’ concepts arising from sustainable development reporting exercises, for example SEA reports (Therivel & Partidario 1996) or urban sustainability reports (Maclaren 1996).

Central to this section is the recognition that ‘dynamism’ can also be a consequence of the use of these reports by the community. As, Berke and Conroy note:

“sustainable development is a ‘dynamic process’ that extends from the formulation of a plan. Sustainability requires communities to pursue an evolving and ever-changing program of activities, including a continuous process of evaluating current and emerging trends, an ongoing means of encouraging citizen participation and negotiating conflicts, and an updating of plans.” (Berke & Conroy 2000, p. 22)
As a consequence, ‘dynamism’ from reports or plan documents will be conceptualised here in two ways, which are interconnected. First, conceptualised as the comprehension of the report or plan by the community based on the amount of information provided by it (i.e. what are the options to achieve the objectives of the plan). And second, conceptualised by the consequences of this comprehension (i.e. review, public debate).

### 4.2.2.1 Form of the report

This feature of the plan has been tackled by several authors. According to Gruft and Gutstein (1972), comprehensive planning reports need to comply with the following three criteria. First, they need to reflect a rational decision-making process. Within this criterion they advocate for the explicit inclusion in a report of values, goals, objectives and the assessment criteria for proposals. It is also expected that a report will provide a description of the decision-making process. The authors state that the aim “is to make critical evaluations of reports possible by citizens, public officials and other professionals” (Gruft & Gutstein 1972, p. 3).

Second, reports need to allow and encourage public participation. Apart from requesting involvement of the public in the production of the report, this points to the need of facilitating public response to the plan. The authors also emphasise the need for appropriate language for its intended readership, otherwise “the public will not understand it; decision makers will not receive the necessary feedback” (Gruft & Gutstein 1972, p. 5).
Third, the authors consider a report “not as a self-contained event, but as part of an ongoing process” (Gruft & Gutstein 1972, p. 6). Hence, there is the possibility of constructing better reports based on previous accumulated knowledge. This is the reason why information from the first criterion is needed; so that reports can be built on the success and failures of previous reports.

Based on these three points, a report (plan) can be used as an academic reference. For example, a report must provide sources for any theory, method or findings borrowed from other disciplines, as well as references to crucial statements about future trends. Where models are incorporated, a report must give a rationale for their use, otherwise it could imply that “to the authors the models were so obvious as to make substantiation unnecessary” (Gruft & Gutstein 1972, p. 7).

From a similar perspective, but emphasising the comprehension of the plan document for the purposes of public debate, Kent asks:

“What account of our reasoning, what basic factual data, what amount of historical background information, and what description of current problems and of major alternatives considered and rejected are essential for an accurate understanding of the proposed general physical design recommended in the plan and of the community objectives and basic policies that are expressed in the design?” (Kent 1990, p. 120)
This question basically points to the need to have as much information as possible in a plan document, so that public and officials, as they debate, can make judgements with regard to subsequent issues affecting the physical development of the community (Kent 1990). Some examples of the detail of information that a plan document should provide, according to Kent (1990), are: a table of contents that can provide a clear picture of the scheme of organisation used; a section devoted to a discussion of the methods and techniques by which the plan will be carried out; and essential drawings of proposals and maps.

A possible consequence of having public debate over a plan document is that it could be amended, otherwise the plan will not reflect current issues and as a result it will not be used (Kent 1990). In relation to the SEA-backcasting framework, the dynamic process generated each time one is out of track with sustainability (see Figure 10), could be associated with the process of amending the plan through public debate. As a consequence, the process which started with the form of the plan document and concluded with its amendment could be considered a representation of ‘dynamism’. Particularly, if to make amendment possible, it is necessary for officials and the community to ‘learn’ (another representation of ‘dynamism’) from the plan.

Finally, Bonde and Cherpe (2000) stated that for a good quality SEA, the report should:

- contain a description of the plan and the affected environmental extending beyond the physical boundaries of the plan, focusing on key assets, sensitive areas and threats;
• review environmental and sustainability objectives of the plan and propose a set of criteria, targets or indicators for evaluating the effects of the plan’s policies and their alternatives;
• contain a systematic identification, prediction and evaluation of potential impacts, including indirect and cumulative ones, with a level of detail appropriate for appraising the plan and the information needs of decision-makers;
• include recommendations on preferred alternatives and a description of suggested monitoring and mitigation measures;
• include recommendations for tiering its results to environmental assessments at lower levels of the planning hierarchy;
• clearly delineate and explain the methodology by which its findings have been obtained and report on findings from public consultation;
• facilitate sustainability appraisal by (a) evaluating environmental sustainability; (b) presenting its findings in a way which will facilitate an integrated sustainability analysis (including proposing sustainability criteria) (Bonde & Cherp 2000, p. 101).

In sum, a report should allow public participation and comment based on its content. It is recommended that it reflects a rational decision-making process and provide enough information supporting any of its content. In terms of a SEA report, the sixth dot point (above) also emphasizes the need for a clear explanation of how the goals were achieved as well as the findings from public participation. The latter is not viable if, as said before, the information is insufficient.
4.2.2.2 Report follow-up

An element considered central for keeping a plan up to date and which is necessary for amendment and review (‘dynamism’ features), is indicators. Shepherd and Ortolano (1996) and Maclaren (1996) include indicators as central to their reports: SEA and urban sustainability reports, respectively.

In the case of urban sustainability reports, the aim is to “give communities an opportunity to evaluate whether local and non-local sustainability initiatives are having beneficial effects” (Maclaren 1996, pp. 200-1). This is achieved by the selection and use of a set of sustainability indicators (see Figure 13).

Source: Maclaren (1996)

Figure 13. Steps in urban sustainability reporting process
Figure 13 shows the process for a sustainability report. This report should not be simply descriptive; it should also evaluate the results from the indicators and point to progress with respect to sustainability goals (Maclaren 1996). The last step of this process, ‘assess indicator performance’, has a similarity with the SEA-backcasting framework in the sense that it generates ‘dynamism’. In the SEA-backcasting framework, the evaluation between a ‘current real state’ and a future image or vision generates a process which aims at closing any gap. In the case of the sustainability report, a change in the sustainability goals will spark a new report that can identify updated indicators suitable for these goals.

Finally, this research argues that another element to assist in keeping a plan up to date is the use of a webpage. According to Kaiser and Godschalk (1995, p. 374), “with the advent of the “information highway”, plans are more likely to be drafted, communicated, and debated through electronic networks and virtual reality images”. With respect to debating, Wien et al. (2003) pointed to the webpage as tool that can facilitate the participation of stakeholders in early phases of the planning process. In later phases when a plan is implemented and is in need of a review, the use of a webpage could supply electronic mails, providing input for this process. Baer (2004) notes that electronic email for plan amendment allows a lot more input from the concerned public, although it may not be a cross-section of the public and may not be as representative as advocates of public participation like to assume.

As a result, feedback through emails is considered another follow-up measure for amending plans worthy of exploring in this research. It is also regarded as an example of ‘dynamism’ due to the learning process users go through in order to provide
feedback; and a potential response to Kaiser and Godschalk’s (1995) call for a more flexible and responsive process of plan amendment in current times.

So now, the theory underpinning ‘dynamism’ has been provided. This presentation was divided in two main parts: the first related to the role of futures information and its provision in plan documents; and the second, more tangible than the first, focuses on the format of plans (reports) that can also generate ‘dynamism’ by, for example, allowing community reviews. This examination of the theory sets the scene for the next section, ‘dynamism’ in practice.

4.3 Examples of dynamism in practice

In practice, research about the above elements representing ‘dynamism’ in plan documents has been mainly limited to the specific analysis. However, Ericksen et al. (2004) using eight criteria provided a much wider analysis of several plan documents in New Zealand. Therefore, this section presents both categories: first the practice of some specific ‘dynamism’ elements; and second, a description of Ericksen’s et al. (2004) plan criteria and their relationship with ‘dynamism’.

4.3.1 Specific criteria experiences

This section on current practice refers to examples of particular criteria (i.e. visioning, uncertainty, techniques, reporting and follow-up) since instances that gather the totality of the ‘dynamism’ cases described above is limited.
Visioning. Myers and Kitsuse (2000, p. 2) state: “references to the future abound within the profession, appearing frequently in both professional and academic discourse as well as in planning documents, particularly those pertaining to 20-year comprehensive plans”. Examples of these include: Hong Kong 2030: Planning Vision and Strategy, Barcelona 2050, New York 2050⁠¹ and Atlanta’s Vision 2020.

Helling (1998, p. 17) analysed Atlanta’s Vision 2020 and concluded that the collaborative vision was “very effective in promoting interaction on the topics it identified as important, but yielded few clearly significant, immediate results from its list of action initiatives, produced no plan capable of providing ‘a roadmap to the vision’ and required the commitment of $4.4 million in resources”. The main conclusion that can be drawn from this statement is that visions, to be effective, need to present a connection between the future end state and the present or vice versa.

Studies such as Visions for a Sustainable Europe² and Planning with Environmental Objectives: a Guide³, with an emphasis on tools such as scenarios and backcasting, provide the required way for developing paths towards the vision. “Kungalv 2015” is an example of backcasting. This comprehensive planning exercise started by focusing in generating consensus over development within the municipality. First, four scenarios were developed by a working group: coastal and sparse areas, service localities, service localities and stretches and local communities/villages. The vision was the result of assessing the scenarios on the basis of Local Agenda 21, and a

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consultation process among politicians, civil servants and the public. This vision served as the basis to determine the plan objectives, thus planning work progressed (National Board of Housing Building and Planning 2000).

**Uncertainty, future generations and plan time horizon.** Stiftel and Boswell (1999) in their study of ten comprehensive plans in Florida (USA), found that:

- Overall, the comprehensive plans examined project the present forward more than they plan the future. Assumptions are treated as certain, not the products of uncertain futures that they are. Stated goals, objectives, and policies are not presented as the result of the testing of alternatives or scenarios. Selection of the preferred plans takes place with little explicit consideration of the needs of future generations. (Stiftel & Boswell 1999, p. 96).

- In terms of specific examples, the sample showed that the different projections based on best estimates were treated as certainties and hence became assumptions in the plans. Assumptions that are unlikely to happen, therefore creating a potential for error in these estimates that is not explicitly incorporated into goals, objectives, and policies. (Stiftel & Boswell 1999, p. 95)

- Just one of the plans gave an explicit justification for the selection of the time horizon. It refers to interagency coordination. (Stiftel & Boswell 1999, p. 95)
• None of the plans tested the sensitivity of conclusions to the selection of the time horizon; or applied a discount rate to analyse future costs or benefits. (Stiftel & Boswell 1999, p. 95)

• Even though all the plans implicitly provided consideration of future generations, especially through conservation elements, only one gave a discussion of the interest of future generations. (Stiftel & Boswell 1999, p. 95)

These findings provide direction for the current research. In particular the need for comprehensive plans to test assumptions, consider alternatives, include selection process between alternatives, technically select the plan time horizon, and employ discounting of benefits and costs that occur in future years.

Techniques. There is little material examining the use of techniques (i.e. visioning, trend extrapolation, scenarios, net present value, cumulative impact assessment, triple bottom line, etc) behind the information presented in plans. However, a useful example is the review presented by Hill (1985) on structure planning in the UK. The main example is an exercise by Barras and Broadbent (1982), where sixteen structure plans from 1974 to 1980 were examined. The main characteristic behind these plans was that they were clearly conceived as being part of a rational decision making process. Therefore, the emphasis was on techniques, assuming that, by means of appropriate techniques, planning could become a purely rational process (Hill 1985). Some key findings from these two studies are:
- Even though the plans showed a substantive and rigorous analysis of individual aspects of the data, an overall coherent integration is missing (Barras & Broadbent 1982).

- In terms of the techniques employed in the generation stage, it was said that they tend to encourage the adoption of objectives with spatial parameters (accessibility, the quality of the environment, or the preservation of agricultural land) in disregard of non-spatial issues and objectives (housing quality and employment) (Hill 1985).

- None of the plans assess the expected effect of the alternative strategies on the objectives of the various interested parties. In this regard Hill (1985, p.173) said “equity considerations may require adequate compensation and knowledge of variable effects of how the plan can facilitate the resolution of conflicts between groups in the political process.”

- In terms of uncertainty in the structural plans it was said that “although there is a significant element of uncertainty attached to the estimation on which strategies are based, no plan really attempts a systematic sensitivity testing exercise to assess the effects of possible changes in exogenous population and employment trends on the land use strategies of the plans.” (Hill 1985, p. 173)

- Senior officials at the Department of Environment (UK) are less interested in methodology and more aware that planning decisions have become more political. Hill (1985, p.175) stated “instead of structured evaluation, the emphasis is on intuitive reasoning.”
It is important to mention that these findings are offshoots of the 1968 Town and Country Planning Act, which itself is a product of the systems era. Therefore, they represent a particular moment of planning, one which is also relevant to this research as the core of the analysis attempts to concentrate solely on technical aspects of plan documents. In the present research it is argued that even though planning is a political process, hence rationality is not necessarily the general case, there is some space available for improvement in planning for sustainable development through techniques exemplifying rational processes, i.e. SEA.

**Reporting.** Gruft and Gutstein’s (1972, p. 3) pioneer work, looking at the plan document as a product, presented the following general conclusion from a sample of eighteen plans in Canada and USA: that in “spite of the looseness of our criteria not one report was even minimally adequate as a rational decision-making tool.”(Gruft & Gutstein 1972, p. 3)

Some of the reasons supporting this statement were: a) that the generation of objectives and the selection of data was the consequence of designing the solution, not the cause of it; b) popularizations of social science theory, superficial analogy and doubtful rule of thumb were used for decision making; c) the report lacked criteria to explain the selected proposal; d) public participation in producing the plan was disregarded; and e) the lack of clarity in the reports made them impossible to assess. These shortcomings in the reports made them hardly usable in democratic society (Gruft & Gutstein 1972). Hence, these limitations prevented the reports from being consulted and applied.
However, the aim of these types of analysis has been complemented with today’s emphasis on sustainable development. An example of this development is SEA, which is a process with a report as output (Figure 3 in Section 3.4.2). Its emphasis, rather than being the comprehensiveness of the report, is on the consideration of the environment in strategic decisions for sustainable development.

In this regard, Rodriguez (1998; Rodriguez 2000a) analysed a transport strategy draft document in Scotland and a land use plan in Colombia, and established that the application of the SEA process to the reports was useful in pinpointing information that should be provided, in order not to limit the selection of a proposal. For example, in both cases scenarios from a range of options were not considered, and as well the proposed solution was not considered against an environmental baseline. In the case of the land use plan, the strong regulatory framework limited the generations of options, and disregarded sustainable development as the main driver for land use plans.

Finally, Fisher’s (2002b) results on SEA’s practice in land use planning and transport in the European Union, showed that from the selected sample of twenty five SEAs, 96% of them provided a public document or generated participation and consultation on the basis of a public document, in at least one of the SEA stages. This fact reflects a link between documentation and public participation in practice, which according to previous sections can generate ‘dynamism’ if a proper understanding and ‘learning’ from the report occurs.
Follow-up. Fisher’s (2002b, p. 222) study also concludes “that SEA procedure was correlated with the extent to which sustainability aspects were considered”; and that “SEAs that included monitoring tended to consider sustainability objectives, targets and measures well; in other words monitoring provisions show commitment to achieving previously defined objectives and targets” (2002b, p. 223). Hence, in practice, the relevance of monitoring is directly related with sustainable development under a SEA framework.

However, monitoring faces some significant obstacles that need to be addressed. According to Seasons (2003), practice in planning departments in Ontario, Canada, has shown that the inclusion of monitoring in plans is a process heavily influenced by political realities. The author stated that “ultimately, the decision to proceed with monitoring and evaluation is political in nature…The benefits of evaluation should be clearly and effectively communicated (in effect, marketed) to staff and council, as well as other stakeholders” (2003, p. 438). Therefore, monitoring should be presented in a simple and clear way allowing for understanding of the scope and usefulness of the indicators presented at the monitoring stage.

As with problems that are analysed in parts to understand the whole, it is expected that the scatter examples from this section (i.e. visioning, uncertainty-future generations-plan horizon, techniques, reporting and follow-up) can provide ideas to support the need for developing ‘dynamism’ in plans which will end-up enhancing the quality of plan documents for sustainable development. On the other hand, in order to complement this view, the next section provides an example that integrates various
criteria into one analysis and hence presents a more comprehensive view of some of these ‘dynamism’ characteristics.

4.3.2 An example of Dynamism as a component of plans

So far, examples of some criteria have been presented (i.e. visioning; uncertainty, future generations and plan time horizon; techniques; reporting; and follow-up). However, a more encompassing example, in terms of the criteria analysed, that can show how all the criteria are interweave and link to a plan is useful to understand the relevance of dynamism in plans.

The example presented below is based on the plans (district and regional) that were generated as a result of the Resource Management Act\(^4\) in New Zealand. The example focuses on the analysis of the quality of these plans. It is worth noticing that dynamism or some of its criteria are parts of the example and that it has a much broader scope than dynamism. However, for dynamism, this example is valuable in the sense that it presents previous research that can aid in the future exploration of dynamism in practice.

The presentation of this example is divided in three parts. First the criteria used for their analysis is presented (Table 3). Second, the overview of the findings is provided. And third, the link with dynamism is presented.

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\(^4\) The RMA was the result of translating New Zealand environmental concerns into environmental planning. This was achieved by the adoption of an environmental planning mandate in 1991, after three years of extensive consultation.
Criteria

With the purpose of improving the quality of plans for sustainability developed under the Resource Management Act, Ericksen et al. (2004), based on their previous work (Berke et al. 1999), presented eight criteria outlined in Table 3.
Table 3. Criteria for evaluating the quality of plans

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Interpretation of the Mandate:** Articulation of how legislative enabling provision is interpreted in the context of local (or regional) circumstances.  
  - Is there a clear explanation of how the plan implements key provisions involving matters of national importance, Treaty of Waitangi, duties to assess costs and benefits, and duties to gather information and monitor?  
  - Is there a clear explanation of the functions of a district plan, as required by key legislative provisions? | |
| **Clarity of purpose:** Articulation of a comprehensive overview, preferably early on, of the outcomes the plan attempts to achieve.  
  - Does the overview consist of a coherent explanation of environmental outcomes?  
  - Does the overview contain a discussion of social, cultural and economic matters affecting those environmental outcomes? | |
| **Identification of Issues:** Explanation of issues in terms of the management of effects.  
  - Are issues clearly identified in terms of an effect-based orientation? | |
| **Quality of Facts-Base:** Incorporation and explanation of the use of factual data in issue identification and the development of objectives and policies.  
  - Are maps/diagrams included? Do the maps display information that is relevant and comprehensible?  
  - Are facts presented in relevant and meaningful formats?  
  - Are methods used for deriving facts cited?  
  - Are issues prioritized based on explicit methods?  
  - Is cost/benefit analysis performed for main alternatives?  
  - Is background information/data sourced/referenced? | |
| **Internal Consistency (of Plans):** Issues, objectives, policies, and so on are consistent and mutually reinforcing.  
  - Are objectives clearly linked to issues?  
  - Are policies clearly linked to certain objectives?  
  - Are methods linked to policies?  
  - Are anticipated results linked to objectives?  
  - Are indicators of outcomes linked to anticipated results? | |
| **Integration with Other Plans and Policy Instruments:** Plans should integrate actions of other plans and policy instruments that are produced within the agencies or by other agencies.  
  - How clear is the explanation of the relationship of each mentioned policy/policy instrument of the plan under study?  
  - How clearly are cross-boundary issues explained? | |
| **Monitoring:** Plans should indicate provisions for monitoring and identify organisational responsibility.  
  - Are provisions for monitoring the performance of objectives and policies included in the plan?  
  - Are the specific indicators to be monitored identified?  
  - Are the organisations responsible for monitoring and providing data for indicators identified? | |
| **Organization and Presentation:** Plans should be readable, comprehensive and easy to use for both lay and professional people.  
  - Is a table of contents included (not just a list of chapters)?  
  - Is a detailed index included?  
  - Is there a user’s guide that explains how the plan should be interpreted?  
  - Is a glossary of terms and definitions included?  
  - Is there an executive summary?  
  - Is there cross-referencing of issues, goals, objectives and policies?  
  - Are clear illustrations used (e.g. diagrams, pictures)?  
  - Is spatial information clearly illustrated on maps?  
  - Are individual properties clearly delineated on maps? | |

Source: Berke et al. (1999)
For their study two types of plans were analysed: Regional Policy Statements (RPS) and District Plans (DP). The sample for the analysis included sixteen RPS and thirty four DP. The statistical results of the eight criteria are presented in Table 4. The numbers in the Table show the means of the evaluation ratings for the type of plan (RPD and DP). Each of the criterion was assessed with a score from 1 to 10, with 80 was the maximum score for each plan.

### Table 4. Comparison of statistical means between Regional Policy Statements and District Plans

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Regional Policy Statements (max = 10)</th>
<th>District Plans (max = 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Clarity of purpose</td>
<td>6.88</td>
<td>6.76</td>
</tr>
<tr>
<td>2. Interpretation of the mandate</td>
<td>6.51</td>
<td>3.62</td>
</tr>
<tr>
<td>3. Integration with other plans</td>
<td>4.62</td>
<td>4.26</td>
</tr>
<tr>
<td>4. Organization/presentation</td>
<td>3.69</td>
<td>4.76</td>
</tr>
<tr>
<td>5. Fact base</td>
<td>1.20</td>
<td>0.62</td>
</tr>
<tr>
<td>6. Identification of Issues</td>
<td>6.09</td>
<td>4.63</td>
</tr>
<tr>
<td>7. Internal consistency</td>
<td>6.16</td>
<td>6.56</td>
</tr>
<tr>
<td>8. Monitoring</td>
<td>2.07</td>
<td>3.87</td>
</tr>
<tr>
<td>Overall total means</td>
<td>37.22</td>
<td>35.37</td>
</tr>
</tbody>
</table>

*Source: Adapted from Berke et al. (1999)*

From Table 4, Ericksen et al.(2004) observed that:

- There is no significant difference between the overall quality of a RPS and a DP (as the sum of means of all criteria is 37.22 and 35.37 respectively).
- Once compared, the RPSs show higher values for three criteria: interpretation of the mandate, fact base and identification of issues.
- The comparison also showed that DPs presented higher values for two criteria: organisation/presentation and monitoring.
- The other criteria - clarity of purpose, integration with other plans and internal consistency - did not show relevant differences after comparison.
These results can be explained by the difference in the functions between a RPS and a DP, and the type of planning instrument they represent. Underpinning the RPSs, aimed at the management of biophysical resources, is the presence of scientists with a history of managing these types of resources. This provides the means for a fact base to be accurately produced. Also, staff from the various regional councils carried out early meetings to decide on templates for RPSs. These two characteristics gave the Regions a stronger position over the Districts in identifying issues, and in interpreting provisions of the RMA (Ericksen et al. 2004).

On the other hand DPs were more planning culture based. This had two effects: the first was that developing a fact base was more difficult for DPs; and the second effect was DPs were more readable and comprehensible for lay and professional people. According to the authors it may also be possible for DPs staff to have a better understanding of how to monitor performance, and hence were better able to link indicators to objectives, plans and organisational responsibilities (Ericksen et al. 2004).

*Findings of the example*

In general terms, Ericksen’s et al. (2004) research divided the quality of the plans findings in three parts: lack of rigour, truncated consultation, and the next generation. These are expanded below.
Lack of rigour

- Ericksen’s et al. (2004, p.290) found that the plan documents produced by the councils needed significant improvement. One of the areas to be improved is the ‘fact base’ in plans. According to the authors, this indicates “the lack of time and skills for carrying out the necessary research and therefore an absence of analytical rationales for defining and prioritising issues”. It was also mentioned by the authors that this might be the reason for the unfavourable results for ‘monitoring’ and ‘issue identification’.

- The ‘interpretation of the mandate’ was another weakness of the plan. It showed that “local plans in particular did not provide clear explanations of how the goal of sustainable management applies to local physical and social conditions” (Ericksen’s et al. 2004, p.290). This was due to the lack of clarity in the RMA in the relevant parts for this purpose. As a result, their plans and policy statements did not offer a united vision of the future, or what constitutes a sustainability managed environment.

- In terms of the ‘integration’ criteria, the local plans did not have a clear explanation of how the other local, regional and national plans were going to be included in the plan.

- ‘Internal consistency’ and ‘clarity of purpose’ criteria presented the highest scores. Having said that, the authors point at the weak link between objectives and anticipated environmental results, and also at the weak provisions for monitoring (both new RMA requirements). A reason for this was that writers did not have a clear understanding of
what the plan was trying to achieve, or they did not have the skills to express it via “a rigorous cascade of tightly crafted policies and rules” (Ericksen’s et al. 2004, p.291).

- In regards to ‘plan organisation and presentation’ criteria, the authors stated that “too many plan-writers seemed to have forsaken their ‘plan organisation and presentation’ skills” (Ericksen’s et al. 2004, p.291). A possible explanation to the low scores could be their uncertainty towards developing the new effects-based plans or the speed with which they were done.

**Truncated consultation**

- Even though a great deal of consultation was done, resistance from some property owners was encountered especially if the plans were effects-based (these are plans that integrate the effects-based approach; ‘effects-based’ focusing in setting the limits of environmental effects of activities without deciding on which activities). According to the authors the problem was a result of too much effort at the beginning with ‘issues’ and ‘objectives’, and too little effort late in the plan-making process over ‘methods’ and ‘rules’. A reason presented for this was that in the process attention was focussed in completing studies to fill the gap that limited research on the environment had left. Pressures from councillors to be notified of the plan before it was satisfactorily completed, was also a reason for a truncated consultation.
In order to improve the next generation of the RMA plans, several points are put forward by the authors: 1) the critical timing and emphasis of ‘research’ and ‘consultation’ (essential components of the rational-adaptive approach) in relation to the steps in the plan-development process; 2) the clarification of their purpose; and 3) the enhancement of the plans through the use of the state of the environment monitoring.

As opposed to the previous section on examples of specific criteria (Section 4.3.1), the idea with the current section is to provide a case of current practice which can provide an indication of the matter of exploration in this research. The experience in New Zealand provides valuable insights into a way of analysing quality of plans and also dynamism. Most importantly, it presents a comprehensive set of criteria based on the literature, which target different and complementing elements of the plan; some of them in direct relationship with dynamism and the present research (see below). It is worth noting that Ericksen’s et al. (2004) research does not only provide findings in terms of the quality of plans, but also into areas like organisational capability and institutional arrangements. However, these findings are not matter of the present research.

*Links with Dynamism*

With respect to the present research, it is worth mentioning that not all of the criteria presented by Ericksen et al. (2004) are directly related to ‘dynamism’. Most of their
criteria correspond to what here has been called ‘Reporting’ criteria (section 4.2.2.). However, four criteria showed clear links to the present study:

- ‘fact base’, due to its relationship to methods and techniques within the plan (section 4.2.2.1);
- ‘organisation/presentation’, due to its focus on the presentation of the plan document itself (section 4.2.2.1);
- ‘monitoring’, due to close similarities with Report Follow-up (section 4.2.2.2); and
- ‘clarity of the purpose’, which does not have a clear counterpart in this study, but is considered to be related to the development of a vision (needed for the SEA and backcasting dynamic framework), see section 4.2.1.2.

In sum, these four criteria plus the additional one presented in sections 4.2 and 4.3 are examples of dynamism in plans. All will be explored in current Australian strategic plans. The approach taken for this exploration is described in Chapter 5. However, at this point of the research it is considered central to view how in theory these criteria work. The next section provides an sketch of this idea.

4.4 Outline of a theoretical representation of a Dynamism Framework

The objective of this section is to put together all the criteria into one framework (see Figure 14), and to present a possible way these criteria can be interconnected.
First is to group the criteria according to their function. This will allow the concept of ‘dynamism’ to be further grasped and located in relation to the SEA-backcasting framework. The first group of criteria (A), located at the top right of the Figure, represents the information that will be included in a plan document as a result of using a technical approach to plan making. As stated previously, information in plan documents is needed so that interested parties, community and decision makers can understand the plan and provide feedback to the plan document once the situation or the existent conditions have changed. The second group of criteria (B), located at the bottom left of the Figure, represents the mechanisms that should be provided in the plan document. The understanding of the plan document materializes in a situation where the plan document is able to evolve and develop into a new plan document; making the plan dynamic.

Figure 14 represents the dynamic process occurring as a result of incorporating the criteria to be assessed. In this representation, the presence of all the criteria guarantees ‘dynamism’, and on the other hand their absence limits its occurrence.

The process is described in several steps in Figure 14. First, a backcasting exercise in search for an alternative future of high sustainability (z) is developed; this materializes in a plan document (plan a) in present time aiming for that goal. Second, once the policies in the plan document are implemented they would provide initial steps towards the goal. In time, most likely, due to an evolving and changing environment, the policies will not perform as planned (horizontal dotted lines). Therefore, elements from the B set criteria such as monitoring will assist in reviewing current results. In the case where the latter are not satisfactory, it will spark the
4. Sustainable Development and "Dynamism"

generation of a new plan (Plan a’). This new plan aims to bring development back into the sustainable path (point y) - this is if the goal remains to be (z) – and is based on the information from the previous plan document accomplished by using the A set criteria. Additionally, feedback from public participation as a consequence of understanding the plan document, allows for amendments or adaptations. Finally, the whole process starts again; this time from point (y).

The enhanced framework

Figure 14. The SEA-backcasting framework and ‘dynamism’
This mechanism has two extremes. The first, when low assessment results for the criteria are obtained, which indicates that either the plan document does not possess an appropriate base of information to understanding the document (supported in tools or techniques, A set criteria); or the plan document does not possess mechanisms which will allow for its change and adaptation (B set criteria). The second extreme is when high assessment results of the criteria are obtained. This points to a plan document conceived to face change, ensuring high public involvement.

Finally, it is worth mentioning that the presented mechanism is one of many ways in which these criteria can be intertwined.

The next section presents an overview of the literature review and provides a summary of the main ideas to be analysed in further chapters.

4.5 Overview

Apart from the previous theoretical attempt to assemble all the criteria, there have been various attempts in dealing with some of the ‘dynamism’ criteria, in comprehensive planning. Recently, a robust analysis of plans was accomplished in New Zealand as a way to improve the quality of plans for sustainability under the RMA. Although, it was found that some of the elements from this analysis are common to the elements of ‘dynamism’ presented in this chapter, their goal is different. Whereas the aim of the New Zealand experience is to develop a method for assessing plan quality and explore how governance and capacity influence the whole planning system including the quality of plans, the aim of the present research is to
explore how current practitioners in Australia are dealing with sustainability in plan documents, particularly through ‘dynamism’, a group of concepts and criteria involving continuous change.

Before continuing with the methodology of this research, a brief overview of the preceding chapters is provided.

In Chapter 2, a brief review of planning history is carried out emphasising the background of the ‘technocratic’ approach selected for this research. It is worth mentioning again, that despite acknowledging that planning is a political process, this research has taken a ‘technocratic’ approach due to the selection of tools as the major instrument for plan analysis.

Chapter 3 describes two ways of planning for sustainable development, one focusing on the content and the other on the process. The latter was selected as a more manageable way to analyse the different steps involved in planning for sustainable development. In terms of the tools for sustainable development, SEA and backcasting were presented as tools that can complement each other, and with the potential to be used as a way to enhance the inclusion of sustainability principles by practitioners in comprehensive plans.

Chapter 4 based on the connection between SEA and backcasting, developed the idea of ‘dynamism’. This was further expanded in the literature review, with elements that extend from the SEA-backcasting framework. From this, ‘dynamism’ is considered to be more than a specific concept; it is an arrangement of concerns from different
authors in relation to the operationalization of sustainable development. The common denominator of this arrangement is that it gives plans an enlarged technical element, which could ease the translation of sustainability statements into planning practice. The main characteristic of these concerns is that, in one way or another, they all reflect a degree of change (i.e. learning, futures information or uncertainty within others) that should be an integral part of plan documents. Moreover, this degree of change was presented as a dynamic mechanism in a theoretical outline in Figure 14.

At this point a concept, ‘dynamism’, has been constructed based on literature review. SEA and backcasting have been the origin for this construction, although it has evolved and expanded into further criteria that relate to change, especially with respect to time, as shown in Figure 14. The task now is to explore the need for this concept and its criteria in current plan documents, as it is believed that ‘dynamism’ can enhance planning for sustainability.

In order to achieve this goal, the next chapter presents the methodology used in this exploration. As an overarching note, it is important to mention that the research points at the written versions of the plan, the plan documents, as the main object of investigation. Having said that, it is recognised that the written document is part of a much wider process, the plan.
Chapter 5

METHODOLOGY

From the previous chapters a focus on techniques can be observed, particularly to techniques presenting a rational process like SEA and backcasting. Both of these techniques follow a teleological approach guided by sustainable development. It is believed that by focusing on ‘dynamism’, an offshoot of SEA and backcasting, and separating them from key planning influences such as market and political forces, the research will provide objective knowledge about the plan documents.

The quest for this knowledge is presented in four sections. Initially, an introduction to the philosophical stand of the project is described. Then, the rational and research questions underpinning this research are provided. Next, the methods supporting this qualitative analysis are presented. And finally, in order to obtain meaning from the data, a particular data analysis based on excel spreadsheets and document analysis is explained.
5. Methodology

5.1 Introduction

The philosophical pillars of this research are mainly constructed around functionalism. However, as in dissertations using interviews, interpretivism also plays a relevant role. Additionally to these, case studies provided the operational strategy for this research. Explanations relating to Functionalism, Interpretivism and Case Studies follow.

Functionalism

The fundamental aimed objective knowledge of the research is based on a mechanical-like framework based on SEA and backcasting (see Section 4.1). This framework seeks a homeostatic equilibrium towards sustainable development, which means that if the system (in this case a plan for sustainable development) is disturbed and moves away from equilibrium, the system, based on a review of the implementation, will be redirected towards the equilibrium path.

This line of enquiry is supported under Burrell and Morgan’s (2001) functionalist paradigm. This paradigm is recognized as the oldest and most dominant in sociology and many other social sciences (McClelland 2000). It has been built around two emphases: first, the application of the scientific method to the social world; and second, the use of analogies between biology/mechanics and society. Therefore the conception of science underpinning this paradigm, stresses the possibility of objective enquiry capable of presenting true explanations and predictive knowledge of an external reality. Table 5 provides an overview of this paradigm compared to the present research.
Table 5. Commonalities between the research and the functionalist approach

<table>
<thead>
<tr>
<th>‘Dynamism’ research</th>
<th>Functionalist approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of rational techniques such as SEA and backcasting.</td>
<td>“In its overall approach it seeks to provide essentially rational explanations of social affaires” (p.26)</td>
</tr>
<tr>
<td>The belief that the exploration will generate objective data.</td>
<td>“the conception of science which underlies the paradigm emphasises the possibility of objective enquiry capable of providing true explanatory and predictive knowledge of an external reality” (p.107)</td>
</tr>
<tr>
<td>The equilibrium after implementation can be re-established through a mechanical framework (SEA-backcasting)</td>
<td>“It is usually firmly committed to a philosophy of social engineering as a basis of social change and emphasises the importance of understanding order, equilibrium and stability in society and the way in which these can be maintained” (p.26)</td>
</tr>
<tr>
<td>The research provides the form and structure of the inquiry, aiming at an independent observation of the planning process to deliver plan documents.</td>
<td>“It is a conception which attributes independence to the observer- an ability to observe what is, without affecting it” (p.107)</td>
</tr>
</tbody>
</table>

Interpretivism

Table 5 basically provides an overview of the fundamental origins of the research mentioned under the functionalist paradigm. However, it also provides an extra characteristic which is worth considering in terms of the interpretivist paradigm\(^5\): the independence of the observer. In the interpretivist paradigm, social reality is constructed

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\(^5\) According to Burrell and Morgan (2001), this paradigm is informed by a concern to understand the world through the level of subjective experience.
and ordered from the point of view of the actors directly involved, therefore the imposition of external form and structure by the observer is resisted (Burrell & Morgan 2001).

This delineation has two relationships with the present research. First, in an objective way, the independence of the observer had been sought through the use of a prestructured case (see section 5.4.1), where specific answers to an interview guide are the goal. And second, in contrast, the use of an actor’s perceptions of the world to understand plan-making, particularly plan documents provides this research with subjectivity. According to Burrell and Morgan (2001, p. 28), “it (interpretivism) seeks explanation within the realm of individual consciousness and subjectivity, within the frame of reference of the participant as opposed to the observer of action”. Consequently, it could be said that this research is informed by objective and subjective stands.

In brief, it is believed that the social world can be studied in the same ways as the physical world (McClelland 2000). Examples of this consideration in this work are: the division of the interview guide in several parts, which can be amalgamated to make a whole; the use of the homeostatic analogy to preserve the equilibrium aiming at sustainable development; and the independent standpoint of the observer in this exploration. Another commonality between this research and the functionalist approach is the use of interviews as a way of considering the world as ‘objectively real’; social surveys and interviews are considered by McClelland (2000) as techniques used by functionalists. Nevertheless, it is worth highlighting that although functionalism is central
for this research, interpretivism (and the subjective interpretations of the interviews and
the published plan documents) also play a relevant part in providing meaning to the data.

Case study
In relation to this research strategy, the case study approach was used due to the
characteristics of the present study, where answering the questions ‘what is going
on?’ (Bouma 2004), in terms of plan documents and ‘dynamism’, is the main concern.

In terms of the main area of concern, planning, the case study strategy is supported by
Blaikie (2000), and Yin (1994, p. 1) for the following applications:

- “Policy, political science, and public administration research
- Community psychology and sociology
- Organizational and management studies
- City and regional planning research, such as studies of plans, neighbourhoods, or
  public agencies
- The conduct of dissertations and theses in the social sciences...”

The specific topic referred to in planning is the plan document. The purpose is to explore
possible relationships between the plan documents (X) and ‘dynamism’ (Y), the concept
being analysed. Relating to this, Bouma (2004, p. 89) states that “the aim of the case
study is to find out if there is a relationship between variables X and Y within the entity”.

Bouma (2004) presents three different uses for the case study. First, it can be used as an
exploratory study where no hypothesis is tested. Second, by using exploratory case
studies to determine relevant variables for further research or hypotheses for later study. And third, to make initial test of hypotheses (for example testing if two variables show association) thus further research is feasible. From these three uses, the first one was considered more related to this study since ‘dynamism’ is an exploration of a concept that would permit further research and testing.

Finally, this research strategy was implemented following a multiple-case design (Figure 15), where the ‘replication’ of the analysis is performed in all three plan documents (the unit of analysis).
Figure 15. Research design

Figure 15 provides the materialization of the previous ideas and a guide into the present research. The next sections expand on the description of this figure. The process starts with finding ‘dynamism’-like characteristics in the literature, thus generating the concept of ‘dynamism’ (chapters 2, 3 and 4); then constructing the case study; reducing and
analysing the data collected from interviews and plan documents; and finally, obtaining results and hence findings, which are used to draw conclusions about the exploration.

5.2 Rationale and research questions

The research process is an extension of the researcher’s previous academic experience on SEA. The researcher’s awareness on today’s environmental conditions was sharpened in the conference paper ‘Futures Planning: a Systemic Approach’ (Rodriguez 2002). In this paper a link between SEA and backcasting was established as a way to achieve better policies for the future. The feedback gathered from this conference shaped a new framework, which is presented as an example of a ‘dynamic’ framework in section 4.1.

At that point a literature review on the ‘dynamism’-like characteristic of sustainable development began. After reading Berke and Conroy’s (2000) article on how plan documents were promoting sustainable development, the researcher focused the research on plan documents and specifically on exploring the ‘dynamic’ characteristic which was not analysed in the their article. As a result, this research aims at providing insights into this characteristic.
Research Question

In terms of the research question developed to produce this insight, the central query is in relation to sustainable development, and more precisely: how can planning practice increase the possibility for sustainable development in plan documents?

This dissertation argues that the challenge for sustainable development planners is to recognize that even though external elements such as market forces and politics deeply affect the plan-making process, there is scope from a purely technical point of view, to steer development towards more sustainable outcomes. This alternative involves rethinking the type of tools and techniques for plan-making in order to give plans a greater correspondence with sustainable development. Norton (2002) gives three possible answers to our persistent unsustainability: insufficient capacity, commitment and knowledge. It is the last one, knowledge, to which this research is directed. It is hoped that the lack of knowledge on “how to translate general statements of sustainability…into practical performance standards or indicators for policy-making purposes” (Norton 2002, p. 8), will be diminished as a result of the present study.

This main objective will be underpinned with the following supporting questions:

- What is the potential role of SEA and backcasting in plan making?
- How can ‘dynamism’, an offshoot of SEA and backcasting, be expressed in the plan making process?
5. Methodology

- What is the status quo of ‘dynamism’ in current plan documents?
- How can ‘dynamism’ aid the production of Australian planning documents with reference to sustainable development?

These questions have been partially considered earlier; for example: Chapter 3 expands on SEA and backcasting and their role in the planning process while Chapter 4 provides several situations recollected from the literature that exemplifies ‘dynamism’. In the next chapter, Chapter 6 reveals the status quo of ‘dynamism’ from the case studies; as well as providing a discussion on how ‘dynamism’ can enhance the provision of sustainable development in plan documents.

5.3 Methods

In regards to specific methods or techniques applied, this research has four main components. First, a literature review provided the research with the necessary background and supporting material to develop the concept of ‘dynamism’ (Chapters 2, 3 and 4). Second, semi-structured interviews are used to obtain information from the planning practitioners. Third, plan document analysis serves as a technique to examine plan documents, and hence obtain information which complements the interviews. And fourth, personal communications with Mees (2004) and Baer (2004) serve to examine the interview guide and the content, respectively. In addition to these methods, a description of the sample selection is described below.
5.3.1 Sample

The study was exploratory in nature and took place between 2001 and 2005. To decide on the sample, Patton’s (2002) ‘purposeful sampling’ was used as a guide, particularly the ‘maximum variation (heterogeneity) type. Such a sample produces: “(1) high-quality, detailed descriptions of each case, which are useful for documenting uniqueness, and (2) important shared patterns that cut across cases and derive their significance from having emerged out of heterogeneity” (Patton 2002, p. 235). Both of these products are exemplified in the Discussion Chapter.

The initial point for this sampling was to divide the Australian capital cities into three groups, according to population (see Table 6). This was decided because the plan documents selected ought to be representative of city types.

<table>
<thead>
<tr>
<th>Group</th>
<th>Recent Plan</th>
<th>Long term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sydney</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>Melbourne</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Brisbane</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>Perth</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Adelaide</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Canberra</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Hobart</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>Darwin</td>
<td>no</td>
<td></td>
</tr>
</tbody>
</table>

After the cities were grouped into three, two more criteria were added: the availability of a recent (2002-2004) plan document, and the consideration of long term futures in the document. As a result of these criteria, three plan documents were selected with ‘yes’ to

### 5.3.2 Interviews

One of the research methods comprised face-to-face interviews using semi-structured questions. The focus was to first develop an image of each of the plan making processes and documents, and then to determine the ‘state of the art’ of ‘dynamism’ in the plan documents. The purpose of the interviews was to determine whether practitioners consider ‘dynamism characteristics’ consciously as part of the plan-making process, particularly in plan documents. Respondents were audio-taped and then the material was converted into transcripts for subsequent analysis.

Study participants were chosen according to their role in the generation of the documents. Consequently, the management level at the planning departments which coordinated the different parts of the document was the first target. The second target was the supporting staff within these organisations, those able to provide information about the techniques used in the plan making process. Third, if available, practitioners from other government departments, who participated in the making of the plan documents were sought out. As a result, this study represents an ‘expert’ approach to plan documents. In total ten participants were all contacted by electronic mail. All participants played key roles in the developing of these plan documents, and therefore provided a comprehensive insight to
the process. In terms of their occupation, most were practitioners from the area of planning, although academics were part of the sample as well.

An interview schedule to be carried out in early 2004 was developed to guide the nationwide interviews with the practitioners. It was planned to meet participants twice so in the first meeting an explanation of what was meant by ‘dynamism’ could be given in advance to familiarise interviewees with the term. Due to time restraints and job responsibilities from the participants this happened only in one occasion. Mainly they were met once, making the interview a ‘cold’ encounter.

The interview guide (see Appendix 1), was shaped by three factors: first, by the researcher’s previous research on SEA (the 1998 draft of the Aberdeen Transport Strategy (Rodriguez 1998), and the Bucaramanga Land Use planning policy (Rodriguez 2000b)); second, by the literature review which provided relevant concepts about ‘dynamism’-like characteristics in sustainable development and later converted into sections of the interview guide (section 4.2. Dynamism characteristics); and third, a document analysis, which was accomplished through a review of the features of each plan document (Tables 11 and 12).

As a result the interview guide had seven sections.

1. ‘The planner and the plan’ is a section developed to obtain a general idea of the features of the plan and the plan document. The questions are more general and open
ended; they were also used to familiarise the interviewee with the interviewer, serving as an introductory section to the interview.

2. ‘Sustainable development and the plan’, is developed to provide information on how sustainable development was incorporated into the document. Aspects such as the sustainable development definition, triple bottom line, public participation and learning were discussed.

3. ‘The concept of the future and the plan’, serves to collect information relating to how the practitioners perceive the concept of the future, particularly in relation to techniques used to deal with it. Discussing uncertainty serves to complement this section, giving insights on the assumptions taken by the practitioners with respect to the accuracy of the data produced by those techniques and also on their position towards the future.

4. ‘Time and the plan’, aims at exploring how issues that relate to the evolution in time are considered in the plan and the plan document, i.e. future generations and cumulative impacts.

5. ‘Structure of the plan’ explores if the plan-making process and the plan document follow the rational planning process. It is assumed that this process provides the information required by the reader to fully understand the plan. Apart from investigating elements of this process, there were questions about differences with previous plans, especially in terms of techniques. In general, this section explores how comprehensive
the plan document is and therefore how likely it will generate dynamic processes, such as learning.

6. ‘Implementation theory’ is an extension of the fifth section. Its purpose is to flag the relevance of this element as part of the rational process.

7. ‘Webpage and the plan’ is an attempt to explore the webpage as a prospect for the plan and the plan document. It is expected that the information collected will support the claim that the webpage will play a major role in keeping both up to date (another dynamic process).

5.3.3 Plan document analysis

This analysis occurred before the interview analysis. The reason was to provide the researcher with background information and to familiarize him with the object of the interviews. This was done, as in the interviews analysis, through ‘reduction’ of the information. The purpose was to distil the information (from the plan documents) into a table so that trends and then conclusions can be drawn from it (Miles & Huberman 1994).

The document analysis also served the purpose of complementing the information gained from the interview analysis. This overview was achieved based on Kent’s (1990) perception for the use of the ‘Table of Contents’. For the author the latter is a suitable guide to the content of a plan. Another perspective is presented by Yin (1994) where the
author describes three uses for documents: first, to verify correct spelling and titles of or names of organisations that were mentioned in the interview; second, to corroborate information from other sources; and third, to construct inferences from documents. The author gives the example of observing a distribution list for a specific document, which could lead to further investigation about networking and communications. As stated before, in this case the Table of Contents was observed and used as a guide to reduce the information from the plan documents.

Once the information is reduced, the generation of meaning from it becomes the main concern. A technique for analysing data in social research, which provides meaning to information, is ‘componential’ or ‘feature’ analysis. According to Denzin and Lincoln (1994), this technique facilitates the study of the content of meaning that is created by the conjunction of the different elements. Therefore, if the different parts of the Table of Contents are considered as the elements, then from their combination one will be able to provide meaning from them, such as an overview of the plan document. Consequently, being able to provide an overview of the plan document using the Table of Contents is the central aim of this analysis.

In practice, the research by Ericksen et al. (2004) on plan quality in New Zealand was also a milestone for this particular document analysis. Special consideration was given in this research to one of their eight criteria for plan analysis: Organization and Presentation (section 4.3.2. An Example of Dynamism as a component of plans). This criterion explores the existence of some the features of the plan document, such as table of
contents, glossary, executive summary, cross referencing, etc. Its existence in the plan is based on the assumption that “plans should be readable, comprehensible and easy to use for both lay and professional people.” (2004, p. 39)

Consequently, each of the plan documents selected for this research was examined following a common structure set by their own Table of Contents (see Tables 10, 11, 14, 15, 18 and 19). These Tables were produced in relation to each of the plan documents particularities (i.e. number of photographs used in the plan document, existence of action plan, presence of indicators, etc). It is expected that this will aid completing the description of each document.

5.4 Data Analysis

This section presents a guide on how qualitative data, the information gathered from the interviews and from the plan documents is analysed and used to provide suitable data for further stages of this research. This section is divided in two: first, interviews analysis; and second, the plan document layouts analysis.

5.4.1 Interviews

Apart from providing information about how the data from the interviews are analysed, this subsection is also presented in a chronological order showing the evolution of the researchers’ methodological approach. This evolution is divided in two parts: data
reduction and data display. These parts are the product of adopting Miles and Huberman’s (1994) approach to qualitative analysis, where it is divided in three: data reduction, data display and conclusion drawing. In this research ‘conclusion drawing’ is considered in the conclusion chapter.

**Data reduction**

Miles and Huberman (1994, p. 10) offer the following definition: “data reduction refers to the process of selecting, focusing, simplifying, abstracting, and transforming the data that appear in written-up field notes or transcriptions”. Below is the description of what actually occurred in the research process.

After the interviews were finished, they were transcribed into a word document. The first step was to underline all possible material which could answer each of the questions from the interview guide. This process which is a part of the data analysis, is called ‘data reduction’ (Miles & Huberman 1994). The transcripts from the two hour interviews were large and difficult to analyse due to the narration of the respondents, especially if they were senior planners, who tend to answer in a more general way, making it harder to unveil the meaning of their answers. Therefore, the approach taken towards this was to sort, focus, discard and organize the data in a way that could aid the writing of conclusions (Miles & Huberman 1994). The Figure below shows how the information from the interviews was organised using excel spreadsheets.
The Excel software was selected instead of Nudist or En-vivo (more specialised software for qualitative analysis), due to the small size of the sample and the benefits of dealing with the data directly, such as a clearer understanding and comprehension of the potential use of the information collected through the interviews.

a)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>1.a. What are the key features/aspects of the plan?</th>
<th>2.e. How was sustainable development defined for this document?</th>
<th>2.j. Was “learning” used intentionally as a technique for the plan making process?</th>
<th>Q.n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key features</td>
<td>M</td>
<td>r</td>
<td>R</td>
<td>r</td>
</tr>
<tr>
<td>Sustainable development</td>
<td>r</td>
<td>M</td>
<td>R</td>
<td>r</td>
</tr>
<tr>
<td>Learning</td>
<td>r</td>
<td>r</td>
<td>M</td>
<td>r</td>
</tr>
<tr>
<td>C. n</td>
<td>r</td>
<td>r</td>
<td>R</td>
<td>M</td>
</tr>
</tbody>
</table>

Note: M = answer matches the criterion; r = answer do not match the criterion; Q.n = last question; C.n. = last criterion

b)
Figure 16. Initial excel spread sheets

Figure 16 represents the evolution of data reduction using excel. Part (a) of the figure is an abstraction of the content of the spreadsheets. The x axis provides examples of questions from the interview guide, and the y axis presents the key criteria (or themes) derived from the literature. At this point it is worth noticing that both axes match each other, in the sense that any given question will have, as a general rule, a matching criterion, which is the reason why the selected responses represent a diagonal (M) in Part (b) and (c) of the figure. If the selected response does not fit into the diagonal (r), it means that the interviewee gave an answer which matches another question; a situation explained by the sometimes intrinsic vagueness of sustainable development and planning.
concepts, or the closeness of the criteria. Part (b) presents an overview image of the excel spreadsheet of an interviewee; and Part (c) is the compilation of three interviewee spreadsheets into one. In the figure, the information is from the WASSS plan document.

Figure 17 is a vertical cut from Part (c) of Figure 16, which has the following purpose. First, to give examples of the content of the cells in the matrix; and second, to observe the structure of the interview guide represented by the six (vertical) sections of the matrix, each of them formed from several criteria. The union of these sections (Introduction, Sustainable Development, Future, Time, Structure of the plan, and Extra Information) due to its pre-existing order and links (presented in the literature review), provides the necessary structure and purpose to generate meaning from the data.

This way of generating story lines work in the same way as the Framework Approach or, alternatively, to what Miles and Huberman (1994) called Prestructured Case. According to Ritchie and Spencer (1993), the Framework Approach involves sifting, charting and sorting material according to key issues and themes in a systematic process. The authors present the following five stages for this approach:

1. Familiarisation. During this stage the researcher gets immersed in the data, i.e. listening to tapes or reading transcripts.

2. Identifying a thematic framework. The researcher identifies key themes and issues to which the data can be examined and referenced.
3. **Indexing.** In this stage the thematic framework is systematically applied to the data in its textual form.

4. **Charting.** The data is rearranged according to the appropriate thematic reference, building a picture of the data as a whole.

5. **Mapping and interpretation.** When all the data have been charted, the researcher starts to pull together key characteristics of the data, and to map and interpret the data as a whole.

In the present research the first stage, familiarization, was achieved by reading the transcripts and the plan documents several times. For the second stage, the interview guide worked as the thematic framework, since each of the sections represent a theme being analysed. The third stage, indexing, was applied to all the information collected from the interviews. As a result, the information was organised under each of the six sections of the interview guide. The fourth stage, charting, can be represented by Part (c) of Figure 16. Here the data is organised by criteria and sections. Then the excel spreadsheet undergoes a breaking down process where the material is printed according to each of the six sections of the interview guide. The Results are presented in exactly the same way in Appendix 2. Once this separation has occurred, mapping and interpretation will follow. The interpretation stage, where ‘meaning’ for the information is produced, is explained next under Data Display.
### 5. Methodology

#### Perth

<table>
<thead>
<tr>
<th>Interview sections</th>
<th>Criteria</th>
<th>1.a</th>
<th>1.b</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key features</strong></td>
<td>- It is both a long term set of guiding principles and an action plan; second, &quot;it does take seriously the social and stretches people into thinking about what that could mean, in an internationally significant way.**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- <strong>Comprehensiveness and its attempt to go across all levels of government</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Identifies Sustainability as an Overarching approach. And having communication about how society works.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sustainable development</strong></td>
<td>- &quot;I think the governance part is quite progressive, in the way it attempts to lay out future institutional arrangements, to embed sustainability into government decision making. So the commitment to do a Sustainability Act will be the first of its kind in&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- <strong>Public Participation and third, &quot;In order to make that connection you have to be able to get people together in a new and exciting way, where people are no longer fixed into those disciplinary or professional roles.&quot;</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Learning</strong></td>
<td>- <strong>Action</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Future</strong></td>
<td>- <strong>Exchange</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Uncertainty</strong></td>
<td>- <strong>Intergenerational equity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- <strong>Cumulative Impacts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- <strong>Time frame</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- <strong>Monitoring time frame</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Structure of the plan</strong></td>
<td>- <strong>Structure of the plan</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- <strong>Difference with Previous Plan</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- <strong>Strategy considered as a Package</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- <strong>Compared against other ones</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- <strong>Monitoring section</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- <strong>Indicators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maps sections</strong></td>
<td>- <strong>Maps sections</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Feedback information</strong></td>
<td>- <strong>Feedback information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Implementation</strong></td>
<td>- <strong>Implementation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Scheduling procedure</strong></td>
<td>- <strong>Scheduling procedure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Webpage role</strong></td>
<td>- <strong>Webpage role</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>W part of the plan</strong></td>
<td>- <strong>W part of the plan</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Administer the W</strong></td>
<td>- <strong>Administer the W</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Assess procedure W feedback</strong></td>
<td>- <strong>Assess procedure W feedback</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Extra Information</strong></td>
<td>- &quot;Some critics will, you know, find things in the semantic level that you can complain about but I think you've actually got to look at the heart of it and the substance of it and not worry too much about the way necessarily, some things are expressed or&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 17. Example of excel spreadsheets content and interview guide sections**
Data Display

The last stage of the Framework Approach is Mapping and Interpretation. This stage was used to prepare the information for interpretation in the Discussion and Conclusion chapters. A way of preparing this information is through data display. Miles and Huberman (1994, p. 91), define display as “a visual format that presents information systematically, so the user can draw valid conclusions and take needed action”.

The data display in this research consisted of two types of matrices. The first type (a) has three columns. The first column contains criteria that can be rated (i.e. existence of indicators), thus providing information in regards to its status quo and additionally facilitating the generation of overview images for plan documents. The second column contains a rating (strong, moderate, weak and absent). And the third column provides an example of why the criteria got the allocated rating, specifically using quotes from the respondents (see Figure 18). This matrix was divided into two topics: “technicality” and “adaptability”. The former’s objective is to provide information on the techniques behind the planning process, especially the ones aiming at sustainable development. The latter, outlines how adaptable the plan document is to changing circumstances over time.

The second type of matrices (b) show the criteria that could not be rated (i.e. sustainable development, structure, futures-techniques). Therefore the matrices have one less column but retain the example column, with quotes from the interviewees.
(a) Technicality

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Rated</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncertainty</td>
<td>weak</td>
<td>“Whilst there’s a band within which a low or a high level population forecast we’re planning for above the high level forecast…” (Interviewee E)</td>
</tr>
</tbody>
</table>

(b) Dynamism complementary information

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable development</td>
<td>“In many cases we avoid using absolute values because I think one of the most interesting things about the sustainability agenda is that the more we learn about it and the challenge of integrating those things the less we actually know about how to do that” (Interviewee B)</td>
</tr>
</tbody>
</table>

* Rated: “strong”, “moderate”, “weak”, “absent”

Figure 18. Display matrices

An issue that arises from the first type of matrices is the rating. This was a process that was based on the obtained response. For example, in the case of ‘indicators’, if there was a lack of indicators in the plan document this was rated as ‘absent’ and, on the other hand, if the plan document presented indicators (without analysing their quality), it was assessed as ‘strong’. In terms of ‘moderate’ and ‘weak’ rating, the cases were not as straight forward. Generally these assessments were given in terms of how proximate they
were either to ‘strong’ or ‘absent’ ratings. For example, the following quotes are representative of each case:

**Intergenerational equity/future generations**: “I’d have to say it wasn't rigorously done at all, it was more done in a sort of informal and – in an informal way...It is implicit, yes, it is implicit and the absence of analytical techniques, that can actually help you determine intergenerational impacts” (Interviewee H) – rated as ‘weak’ due to the limited technical support underpinning this criterion.

**Implementation**: “that it's strongly connected, that it's layered for confidence, it focuses on short, medium and long term. That it doesn't describe it in such detail that it will discredit the plan if certain things don't happen precisely on that time because it needs to be rather more timeless this document, it can still be picked up and used and be credible as a reference document for many years to come" (Interviewee E) – rated as ‘moderate’ due to the proximity to present a strong implementation section in the plan document.

In brief, the information collected from the interviewees followed the stages of the Framework Approach process (see above). The main resource in this process was the use of excel spreadsheets to organise the information. Once the information was organised it was rated according to its degree of existence in the plan document. This information which represented the practitioner’s stand towards the plan document is also complemented by the Document Analysis.
Reliability and validity

Validity was achieved following Patton’s (2002) evaluation fieldwork, where through the use of observations, interviews and documents the researcher manages to build on the strength and weaknesses of each type of data collection and thus achieve triangulation. The purpose of triangulation is to provide strength to studies by the combination of methods (Patton 2002); hence, it makes findings or conclusions more convincing and accurate (Yin 1994).

In the present research, two types of triangulation were implemented. The first is methods triangulation, where its purpose was to check the consistency within the methods used to collect the information (Patton 2002). In this case interviews and plan documents complemented each other. Second was the triangulation of sources, in this case the consistency of the data sources within the same method is checked (Patton 2002). In this method, the variety of interviews from the practitioners involved in the generation of each document served to confirm their content.

In terms of reliability that benefits validity as well, external academics such as Baer (2004) and Mees (2004) were consulted. For example, the former with his previous experience on plan evaluation, especially in relation to the flexibility of the plan, provided insights into ‘dynamism’; whereas the latter, due to his previous analysis on the content of the Melbourne 2030 document (Mees 2003) provided useful information in
terms of the interview guide. However, no other test was performed for the interview guide, criteria or data analysis method. Therefore, the findings of the study can not be generalised. Nevertheless they serve as novel information for Australian planners who wish to enhance strategic plan documents. Additionally, the findings can be add to the existing literature of plan-making for sustainable development and serve as initial steps for further research in this area.

### 5.5 Overview

The exploration of ‘dynamism’ in plan making in Australia, especially in the plan documents is achieved by the use of qualitative data. Three plan documents were selected as the unit of analysis. The sample was selected by purposeful sampling where heterogeneity in relation to the size of the cities was a main goal. The data for the exploration has three parts: a literature review, interviews with practitioners involved in the production of these documents and the plan documents. The information gathered from these sources of information was analysed and presented through the use of display matrices based on Excel spreadsheets. The results are presented following a preconceived template, which is also represented by the structure of the interview guide.

Two concepts “technicality” and “adaptability” play an important role in explaining the results. It is important to emphasise that these concepts provide information with respect to all criteria for dynamism, including SEA and backcasting. It is worth highlighting that there is no direct relationship between “technicality” and “adaptability”, and SEA and
backcasting, the former terms were selected for explanatory purposes so that dynamism can be understood as a mechanism which needs to be generated from both.

The next section of this research is the Results Chapter. This chapter is presented as an appendix due to its unrefined nature. Therefore the next chapter in sequence is the Discussion Chapter, which plays a double role, presenting the findings and the discussion.
6. Findings and Discussion  

Chapter 6  

FINDINGS AND DISCUSSION  

In the previous chapter the methodology for analysing ‘dynamism’ in plan documents was presented. The current chapter presents the findings and discussion of the results from the interviews (the interview results are given in Appendix 2) and plan document analysis (i.e. format and particularities). This chapter is divided into four sections. Section one presents the findings from the interviews and the analysis of the plan documents. Section two, presents the overall discussion of the main findings of this research to distil the value of this research. Section three provides a discussion of the limitations of the study. Section four is an overview of the chapter.

6.1 Introduction  

In this first section the organisation of the results from the interviews is presented. Table 7, apart from presenting the structure from the interview results in Appendix 2, also provides the themes 6 explored through the interviews (i.e. Sustainable development, Futures, etc) and its criteria (i.e. Definition of sustainable development, vision, etc).

---

6 The purpose of the first section of the interview guide, The Planner and the Plan, rather than exploring ‘dynamism’ concepts, played an introductory role to the interview and also provided an overview of the plan document.
### Table 7. Organisation of results from interviews

<table>
<thead>
<tr>
<th>THE CANBERRA SPATIAL PLAN</th>
<th>MELBOURNE 2030, PLANNING FOR SUSTAINABLE GROWTH</th>
<th>THE WESTERN AUSTRALIAN STATE SUSTAINABILITY STRATEGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUSTAINABLE DEVELOPMENT</td>
<td>SUSTAINABLE DEVELOPMENT</td>
<td>SUSTAINABLE DEVELOPMENT</td>
</tr>
<tr>
<td>Definition of sustainable development</td>
<td>Definition of sustainable development</td>
<td>Definition of sustainable development</td>
</tr>
<tr>
<td>* Plan making process</td>
<td>* Plan making process</td>
<td>* Plan making process</td>
</tr>
<tr>
<td>* Further implementation</td>
<td>* Further implementation</td>
<td>* Further implementation</td>
</tr>
<tr>
<td>* Plan structure and triple bottom line</td>
<td>* Plan structure and triple bottom line</td>
<td>* Plan structure and triple bottom line</td>
</tr>
<tr>
<td>* Checklist approach</td>
<td>* Checklist approach</td>
<td>* Checklist approach</td>
</tr>
<tr>
<td>* Contrasting answers</td>
<td>* Contrasting answers</td>
<td>* Contrasting answers</td>
</tr>
<tr>
<td>Balance between economy, society and Public participation</td>
<td>Balance between economy, society and Public participation</td>
<td>Balance between economy, society and Public participation</td>
</tr>
<tr>
<td>Learning as a technique</td>
<td>Learning as a technique</td>
<td>Learning as a technique</td>
</tr>
<tr>
<td>* Meetings</td>
<td>* Meetings</td>
<td>* Meetings</td>
</tr>
<tr>
<td>* Plan document</td>
<td>* Plan document</td>
<td>* Plan document</td>
</tr>
<tr>
<td>FUTURES</td>
<td>FUTURES</td>
<td>FUTURES</td>
</tr>
<tr>
<td>Vision</td>
<td>Vision</td>
<td>Vision</td>
</tr>
<tr>
<td>Techniques</td>
<td>Techniques</td>
<td>Techniques</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>Uncertainty</td>
<td>Uncertainty</td>
</tr>
<tr>
<td>* Size of the city</td>
<td>* Size of the city</td>
<td>* Size of the city</td>
</tr>
<tr>
<td>* Adaptability</td>
<td>* Adaptability</td>
<td>* Adaptability</td>
</tr>
<tr>
<td>* Not locking the future</td>
<td>* Not locking the future</td>
<td>* Not locking the future</td>
</tr>
<tr>
<td>* Monitoring</td>
<td>* Monitoring</td>
<td>* Monitoring</td>
</tr>
<tr>
<td>* Contrasting answer</td>
<td>* Contrasting answer</td>
<td>* Contrasting answer</td>
</tr>
<tr>
<td>TIME</td>
<td>TIME</td>
<td>TIME</td>
</tr>
<tr>
<td>Intergenerational equity</td>
<td>Intergenerational equity</td>
<td>Intergenerational equity</td>
</tr>
<tr>
<td>Cumulative impacts</td>
<td>Cumulative impacts</td>
<td>Cumulative impacts</td>
</tr>
<tr>
<td>Plan time frame</td>
<td>Plan time frame</td>
<td>Plan time frame</td>
</tr>
<tr>
<td>Monitoring time frame</td>
<td>Monitoring time frame</td>
<td>Monitoring time frame</td>
</tr>
<tr>
<td>STRUCTURE OF THE PLAN</td>
<td>STRUCTURE OF THE PLAN</td>
<td>STRUCTURE OF THE PLAN</td>
</tr>
<tr>
<td>Structure</td>
<td>Structure</td>
<td>Structure</td>
</tr>
<tr>
<td>* Before the document</td>
<td>* Before the document</td>
<td>* Before the document</td>
</tr>
<tr>
<td>* Best way to communicate with the document</td>
<td>* Best way to communicate with the document</td>
<td>* Best way to communicate with the document</td>
</tr>
<tr>
<td>* Role of the document</td>
<td>* Role of the document</td>
<td>* Role of the document</td>
</tr>
<tr>
<td>Difference with previous plans</td>
<td>Difference with previous plans</td>
<td>Difference with previous plans</td>
</tr>
<tr>
<td>* Connection to other/previous plans</td>
<td>* Connection to other/previous plans</td>
<td>* Connection to other/previous plans</td>
</tr>
<tr>
<td>* Key differences</td>
<td>* Key differences</td>
<td>* Key differences</td>
</tr>
<tr>
<td>* Techniques</td>
<td>* Techniques</td>
<td>* Techniques</td>
</tr>
<tr>
<td>Strategy as a package</td>
<td>Strategy as a package</td>
<td>Strategy as a package</td>
</tr>
<tr>
<td>Strategy comparison</td>
<td>Strategy comparison</td>
<td>Strategy comparison</td>
</tr>
<tr>
<td>Monitoring</td>
<td>Monitoring</td>
<td>Monitoring</td>
</tr>
<tr>
<td>Indicators</td>
<td>Indicators</td>
<td>Indicators</td>
</tr>
<tr>
<td>Maps inclusion</td>
<td>Maps inclusion</td>
<td>Maps inclusion</td>
</tr>
<tr>
<td>Implementation</td>
<td>Implementation</td>
<td>Implementation</td>
</tr>
<tr>
<td>Feedback information</td>
<td>Feedback information</td>
<td>Feedback information</td>
</tr>
<tr>
<td>Amending procedure</td>
<td>Amending procedure</td>
<td>Amending procedure</td>
</tr>
<tr>
<td>WEBPAGE</td>
<td>WEBPAGE</td>
<td>WEBPAGE</td>
</tr>
<tr>
<td>Role</td>
<td>Role</td>
<td>Role</td>
</tr>
<tr>
<td>Articulation to the strategy</td>
<td>Articulation to the strategy</td>
<td>Articulation to the strategy</td>
</tr>
<tr>
<td>* Flexibility</td>
<td>* Flexibility</td>
<td>* Flexibility</td>
</tr>
<tr>
<td>Public participation</td>
<td>Public participation</td>
<td>Public participation</td>
</tr>
<tr>
<td>Arousing of the webpage</td>
<td>Arousing of the webpage</td>
<td>Arousing of the webpage</td>
</tr>
<tr>
<td>Vision of the webpage</td>
<td>Vision of the webpage</td>
<td>Vision of the webpage</td>
</tr>
<tr>
<td>Connection between the webpage &amp; plan</td>
<td>Connection between the webpage &amp; plan</td>
<td>Connection between the webpage &amp; plan</td>
</tr>
<tr>
<td>Webpage feedback administrator</td>
<td>Webpage feedback administrator</td>
<td>Webpage feedback administrator</td>
</tr>
<tr>
<td>Assessment procedure of feedback</td>
<td>Assessment procedure of feedback</td>
<td>Assessment procedure of feedback</td>
</tr>
<tr>
<td>Communication strategy</td>
<td>Communication strategy</td>
<td>Communication strategy</td>
</tr>
</tbody>
</table>
Table 7 serves two purposes. It provides an illustration of how the detail collected from each plan document varies. For example, the Melbourne 2030 interviewees provided more additional information (dot points) in comparison to the other set of interviews (possibly due to the extra interviewee included). Secondly, the six sections in the table summarise the concept of ‘dynamism’ for each plan document (see section 5.3.2). In other words, an overview of ‘dynamism’ results from linking criteria available for each plan document.

Following the presentation of the criteria in Table 7, the next step is to keep in mind that the ‘dynamism’ analysis is based on two groups of criteria. This will allow the concept of ‘dynamism’ to be further grasped and understood. The first group of criteria is Technicality and the second group of criteria is Adaptability (See Chapter 5).

6.2 Findings and discussion for each plan document

The objective of this second section is to provide an overall analysis of ‘dynamism’ for each of the plan documents using both the results from the interviews (Appendix 2) and from the plan document analysis (i.e. format and particularities). The analysis of the interviews provide information relating to: a) the techniques supporting plan making (Technicality criteria); b) the adaptability of the plan document (Adaptability criteria); and c) additional criteria such as ‘sustainable development’, ‘futures’, ‘structure’, and ‘plan document presentation’. The last four criteria, due to their overarching presence, could not be located in the previous set of criteria. Therefore, they are considered a separate set of criteria referred to as ‘Supporting dynamism
elements’. It is expected that these four themes will complement and provide a sound ‘story’ in relation to ‘dynamism’.

With respect to plan document analysis, ‘Supporting dynamism elements’, particularly ‘structure’, presents additional information relating to the layout or structure of the document, which is also considered a type of ‘dynamism’ (see 4.2.2. Reporting). Within this section it is referred to as ‘Plan document presentation’ (for current practice see 4.3.2. An example of Dynamism as a component of plans). One table in relation to ‘format’ and a second one in relation to ‘particularities’ provide the results from this analysis for each of the case studies.

6.2.1 The Canberra Spatial Plan (CSP)

The analysis of this document first presents an overview of ‘dynamism’ based on the Technicality criteria (Table 8) and on the Adapatability criteria (Table 9); then a more detailed analysis is provided for the ‘Supporting dynamism elements’. The aim of the detailed analysis is to provide insights into how these themes have been treated in the documents, so that the operationalisation of sustainable development can be advanced. As stated previously (Chapter 4) ‘dynamism’s’ objective is to aid in this operationalisation.
### Table 8. Displayed degree of technicality for the Canberra Spatial Plan document

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>RATING</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision</td>
<td>absent</td>
<td>“If you see the vision for Canberra plan that is the vision of this document” (Interviewee D)</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>weak</td>
<td>“Whilst there's a band within which a low or a high level population forecast we’re planning for above the high level forecast...” (Interviewee E)</td>
</tr>
<tr>
<td>Plan time frame</td>
<td>weak</td>
<td>“what we found is more or less every ten or 20 years the demographics have changed...Since we have talked about infrastructure, so we need to put some roads and infrastructure like water supports and sewerage and things like that, those things actually work in a longer period of time...So that gave us an idea that about 20, 25, 30 years time is quite reasonable time” (Interviewee D)</td>
</tr>
<tr>
<td>Monitoring time frame</td>
<td>weak</td>
<td>“…I think to pragmatically review every five years is probably an appropriate time frame, to make sure that the plan is still basically achieving what it was hoping to achieve because it's really a management tool, I guess” (Interviewee F)</td>
</tr>
<tr>
<td>Future Generations</td>
<td>Weak</td>
<td>“I think that (environmental, social and financial value) was, you know, probably perceived as something that would have been desirable to be done but I don't think it was really done in the end...But in terms of analysis to identify the present value of the plan, that wasn't really attempted” (Interviewee F)</td>
</tr>
<tr>
<td>Cumulative Impacts</td>
<td>Absent</td>
<td>“…none of it – individual cumulative impact against each of the goals, no, it wasn't done” (Interviewee E)</td>
</tr>
<tr>
<td>Strategy as a Package</td>
<td>Absent</td>
<td>“It's drafted in the minds of people who are thinking in an integrated way across all of these areas...” (Interviewee E)</td>
</tr>
</tbody>
</table>


---

⁷ The rating in the matrices was a process that compared the obtained response for the criterion in relation to its presence in the plan-making process or the plan document (i.e. ‘strong’= full presence; ‘absent’= not presented; and ‘moderate’ and ‘weak’ are determined according to its closeness to former two). For further information see section 5.4.1.2.
Table 9. Displayed degree of adaptability for the Canberra Spatial Plan document

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>RATING</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation</td>
<td>moderate</td>
<td>“That it's strongly connected, that it's layered for confidence, it focuses on short, medium and long term. That it doesn't describe it in such detail that it will discredit the plan if certain things don't happen precisely on that time because it needs to be rather more timeless this document, it can still be picked up and used and be credible as a reference document for many years to come” (Interviewee E)</td>
</tr>
<tr>
<td>Monitoring</td>
<td>absent</td>
<td>This element, which by its own name supposes a process, was not developed as a section of the final plan document</td>
</tr>
<tr>
<td>Indicators</td>
<td>Strong</td>
<td>“So it is a reflection of your accountability which is really very important when you are developing a plan…” (Interviewee D)</td>
</tr>
<tr>
<td>Learning as a set</td>
<td>Weak</td>
<td>“…it (learning was thought to be a main tool from the beginning), certainly was…we wanted them (people) to feel it was their plan and they were going to learn things out of it and learn some things which we did, some were going to be surprises to them and to us” (Interviewee E)</td>
</tr>
<tr>
<td>Public Participation</td>
<td>Strong</td>
<td>“It was very successful because there was a structure and a logic and a method clearly articulated early which people understood. It was described as a five step process” (Interviewee E)</td>
</tr>
<tr>
<td>Webpage</td>
<td>Weak</td>
<td>“From the very beginning. If you go to the web site you will see that it was established in 2002 or 3 when we first initiated the project, that part of the web site and since then it has been updated regularly” (Interviewee D)</td>
</tr>
</tbody>
</table>


6.2.1.1 Overview of ‘dynamism’

The material in both Tables comes from representative quotations from the interview results. Comparison of the Tables shows that the ‘adaptability’ criteria (Table 9) presented higher ratings than ‘technical’ criteria (Table 8). This is mainly based on the high assessment value from the inclusion of indicators (although the plan document did not presented a monitoring section as such), the high assessment level of the use of public participation in the planning process (see Appendix 2), and an implementation criterion, found to be moderate due to the establishment of different stages of implementation: short, medium and long term.
In terms of the ‘technical’ criteria, the results show that the techniques in the plan document do not play a major role in supporting sustainable development. In this regard, it is worth noticing how the plan document does not provide a vision (even though its vision is presented in the larger Canberra Plan). As mentioned in the literature review (Flood 1999; Rodriguez 2002) this is crucial to start the dynamic process described by the SEA-backcasting framework.

The following responses are examples of the strong use of public participation and the limited technical analysis in the plan document.

“so, that (participation) was the strength of the plan but as I was saying earlier, maybe it was over – the community was over consulted to the extent that bureaucratic resources, I guess, are limited and if you're spending time doing consulting and talking to people there's less time available to actually do the analysis to support the final plan.” (Interviewee F)

“There were many people in our organisation who thought we were going down the wrong track by doing what's outlined, you know, that five stage process. That we were putting too much belief and too much faith in community and not enough in our own staff and we should be putting more resources into technical staff.” (Interviewee E)

In brief, since each of the Tables (Technicality and Adaptability) is considered to be part of a mechanism to produce better plans for sustainable development through a dynamic process involving SEA and backcasting, the rating shows limited
‘dynamism’ for the document. This is supported in the high presence of ‘weak’ and ‘absent’ ratings, where they are represented in ten out of the thirteen ratings.

6.2.1.2 Supporting dynamism elements

Four criteria are discussed in this section: ‘sustainable development’ and its operationalisation in the plan document through triple bottom line (TBL); ‘futures’, with a particular emphasis on techniques dealing with the future; ‘structure’, in relation to learning as an example of ‘dynamism’; and ‘plan document presentation’, which is based on the document analysis (Tables 10 and 11).

Sustainable development

According to the Canberra Spatial Plan (CSP) document, this document is part of a bigger plan, the Canberra Plan, which has two other parts: an Economic White Paper and a Social Plan (ACT Planning and Land Authority 2004). According to Interviewee E, this is “evidence of a truly sustainable development plan”.

In relation to the operationalisation of sustainable development, the triple bottom line was selected as a suitable indicator to collect information on this matter. Sutton (2004, p. 19) mentions that this concept is part of a compatible suite of sustainability terms. Although he states that “directing attention to environmental, social and economic issues does not in itself mean that it is about sustainability”. Moreover, Sutton argues that defining sustainability in terms of the integration of these three elements involves confusion between ‘means’ and ‘ends’. Additionally, the author says that in practice this integration of issues is often needed to get results. Similarly in this research, using
TBL rather than sustainable development with the interviewees was a way to materialise sustainable development into a less ‘vague’ concept, one probably more familiar to practitioners.

In this regard, Interview E stated “we had four options/scenarios for the physical shape of the city. And they were assessed using the triple bottom line technique…not for the goal.” (Interviewee E)

Therefore, if one uses TBL as an indicator of the operationalisation of sustainable development in the plan document, it is found that its inclusion is limited to the analysis of physical growth scenarios, leaving a gap in regards to how the goals perform under this indicator.

Norton (2002, p. 7), points at the following reasons for the lack of operationalisation of sustainable development: “local officials do not recognize the need to incorporate sustainability into their land use planning and policy-making; do not know how to do so (i.e., lack technical capacity); lack the necessary financial and/or administrative capacity to do so; or lack the commitment to do so”. Further examination of the case studies in this research will give more insights into this issue.

Futures (techniques)

In regards to the exploration of alternative techniques to deal and comprehend the future, it was found that forecasting is the main technique used for this purpose. As Wachs (2001, p. 369) states: “plans today are descriptions of courses of action and enumerations of facilities that are needed to accommodate forecasts of changes in
population, travel, residential needs, office space and the like”. This finding is complemented by the weak result of ‘uncertainty’ in Table 9. The assessment supports the idea that there is a lack of techniques to embrace future uncertainty, that forecasts are assumed correct and that assumptions of the forecasts do not play a role in the plan document. As a result if the decision maker “decides to use the forecast he does not know what risk assumptions enter his decision process. He is no longer in a position to see the different possibilities as they could unfold.” (van der Heijden 1996, p. 103)

In brief, the techniques used to deal with the future (with its nucleus in forecasting) are pointing at a comprehension of the future based on past trends. Unlike the backcasting technique, this does not allow for alternative views of the future that can challenge and enrich the presented proposal for the future.

Structure

The structure of the plan did not present any more options other than the selected proposal. This limitation meant that learning from the plan document is restricted to the presented option. Kent (1990) points at the need to have options within other elements to be able to maintain the plan document and keep it up to date through public debate. In addition, Gruft and Gutstein (1972), point to options as part of a rational decision-making process. Consequently, the ‘structure’ presented in the document does not allow for comprehensive learning or amendment through public debate.
With respect to the structure of the plan document, comparison with previous plans show a potential link to learning that can be observed in the following response: “I think it's simply there was more analysis of the existing situation in relation to various land uses and in the '84 plan there were a lot of explicit alternative scenarios identified and those scenarios were evaluated in relation to goals but they also had (indistinct) assessment sitting behind it and a transport assessment sitting behind it which allows people to understand why the particular plan form was chosen over and above another plan form...but this one doesn't really have that analysis sitting behind it or explicitly in the plan anyway.” (Interviewee F)

A possible explanation to the change of structure in plan documents for this city could be found in the following response: “I guess, in some ways the document has to be a little bit more promotional about Canberra...I think that's a reflection that Canberra has to compete for economic growth whereas probably when the eighty four plan was done growth was almost a given” (Interviewee F). From this response, one might infer that the ‘84 plan document presents an amount of information which allows for a more comprehensive understanding of the plan document from a wider audience. Consequently, the current plan and its structure can be the result of targeting a specific audience i.e. investors, decision-makers, private sector.

Finally, as a way to measure integration within the document in terms of sustainable development, ‘cumulative impacts’ and the ‘consideration of the strategy as a package’ were considered suitable indicators of this characteristic.

In this regard it was found that there is no integration of the policies as a package, and that, therefore, there is no information about the impact of the proposed overall
strategy. The following response is indicative of this finding: “It (cumulative impacts) is drafted in the minds of people who are thinking in an integrated way across all of these areas…” (Interviewee E)

Plan document presentation

This analysis is based on Tables 10 and 11. The document analysis shows an implementation section where its content overlaps with the content of the goals under the section of ‘Achieving the Canberra Spatial Plan’. Relevant to the plan document is the presentation of indicators, although no monitoring section exists as such. The existence of indicators, as reported by Maclaren (1996), will aid communities to know if initiatives are having beneficial effects.

According to Ericksen et al. (2004), ‘organisation and presentation’ of the document is important to ensure that it is user-friendly. In this regard, the plan document presented some key characteristics, such as: legislative framework, a graphical component (box at the bottom of Table 11) based on photographs and maps, and a comprehensive structure of each of the goals section (goals, objective, policy response, actions, outcomes and monitoring indicators).
### Table 10. Canberra’s plan document format analysis

<table>
<thead>
<tr>
<th>Background</th>
<th>The Canberra Spatial Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Announce intention to develop strategy</td>
<td>October of 2001 * (Canberra Plan)</td>
</tr>
<tr>
<td>Printed</td>
<td>March of 2004</td>
</tr>
<tr>
<td>Product of plan-making process</td>
<td>One main document</td>
</tr>
<tr>
<td>Author</td>
<td>ACT Planning and Land Authority</td>
</tr>
<tr>
<td>Level</td>
<td>City-region</td>
</tr>
<tr>
<td>Strategic Framework</td>
<td>A more compact city</td>
</tr>
<tr>
<td>Time frame</td>
<td>30 years plus</td>
</tr>
<tr>
<td>Executive summary</td>
<td>No</td>
</tr>
<tr>
<td>Foreward</td>
<td>Minister for Planning</td>
</tr>
<tr>
<td>Sections</td>
<td>6 main sections: The Future direction for Canberra, The Canberra Spatial Plan- an Overview, Principles of the Canberra Spatial Plan, Achieving the Canberra Spatial Plan Goals, Implementing the Canberra Spatial Plan</td>
</tr>
<tr>
<td>Core topics</td>
<td>Create and maintain a healthy community, Sustain employment opportunities, Retain ease of movement and facilitate good travel connections, Maintain a unique sense of place, Respect the natural environment, Ensure fiscal responsibility</td>
</tr>
<tr>
<td>Structure of the Topics</td>
<td>Goal, Objective, Policy Response, Actions, Outcomes, Monitoring Indicators</td>
</tr>
<tr>
<td>Action plan</td>
<td>Yes</td>
</tr>
<tr>
<td>Appendix</td>
<td>No</td>
</tr>
</tbody>
</table>

### Table 11. Canberra’s plan document particularities

<table>
<thead>
<tr>
<th>Distinct Features</th>
<th>The Canberra Spatial Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature References for further information</td>
<td>Implicit</td>
</tr>
<tr>
<td>Use of quotes in the text from public</td>
<td>No</td>
</tr>
<tr>
<td>Inclusion of plan making process</td>
<td>Yes</td>
</tr>
<tr>
<td>Visions</td>
<td>Not explicitly included in the document</td>
</tr>
<tr>
<td>Indicators</td>
<td>Yes</td>
</tr>
<tr>
<td>Monitoring section</td>
<td>No</td>
</tr>
<tr>
<td>Internal cross reference</td>
<td>No</td>
</tr>
<tr>
<td>Flow charts</td>
<td>No</td>
</tr>
<tr>
<td>Boxes</td>
<td>No</td>
</tr>
<tr>
<td>Number of photographs/ total pages</td>
<td>31/92</td>
</tr>
<tr>
<td>Maps</td>
<td>12</td>
</tr>
</tbody>
</table>

Note. The box at the bottom of this table represents the visual aids used in the plan documents.
A valuable feature in the plan document is the use of multi-coloured maps where the initiatives of the plan can be located. The legislative framework aids in the understanding of the relationship of this document with higher level strategies. The presentation of each of the goals in a rational process allow for a straightforward comprehension of the goals.

6.2.1.3  Dynamism in brief in the Canberra Spatial Plan

In general terms, the plan document presents limited examples of ‘dynamism’. The inclusion of indicators and the production of the document through an extensive consultation process give this plan a solid start for ‘dynamism’, which can spark in the future, processes such as learning, evaluation and feedback from the users. In relation to learning, the document’s structure does not encourage wide understanding from the community, rather it seems more targeted to a particular sector, i.e. investors. And finally, the plan document has a limited technical base not able to fully operationalise sustainable development.

6.2.2  Melbourne 2030: Planning for sustainable growth (M2030)

As in the previous section, the analysis first presents an overview of ‘dynamism’ based on the technicality criteria (Table 12) and on the Adaptability criteria (Table 13). It also provides a detailed analysis for the ‘Supporting dynamism elements’. The aim of the detailed analysis is to provide insights into how these themes have been treated in the documents, so that the operationalisation of sustainable development
can be advanced. As stated previously (Chapter 4) ‘dynamism’s’ objective is to aid in this operationalisation.

Table 12. Displayed degree of technicality for the Melbourne 2030: Planning for Sustainable Growth document

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>RATING</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision</td>
<td>weak</td>
<td>“The vision statement in the plan...was informed by the two consultation processes. So by asking people how they wanted Melbourne to be in the future” (Interviewee G)</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>weak</td>
<td>“So we did is we went back and we looked at what actions we could start taking now that would get us maybe 50, 60 per cent of the way to that final target and we said, we're not too worried about the other 40 per cent because over the next decade things will be learnt that will help get us there” (Interviewee I)</td>
</tr>
<tr>
<td>Plan time frame</td>
<td>weak</td>
<td>“…originally it was 20 years, interestingly. Through feedback from the reference group… particularly from the local government voices on that group, the time frame was extended to 30 years” (Interviewee G)</td>
</tr>
<tr>
<td>Monitoring time frame</td>
<td>moderate</td>
<td>“Probably linked in as much as anything else with things like census data. Census does give you a snapshot of Melbourne” (Interviewee H)</td>
</tr>
<tr>
<td>Future Generations</td>
<td>weak</td>
<td>“I think it was more paying lip service to the notion of intergenerational equity rather than any rigorous analysis of intergenerational change...I'd have to say it wasn't rigorously done at all, it was more done in a sort of informal and – in an informal way...It is implicit, yes, it is implicit and the absence of analytical techniques, that can actually help you determine intergenerational impacts” (Interviewee H)</td>
</tr>
<tr>
<td>Cumulative Impacts</td>
<td>absent</td>
<td>“Yes, but… more looking at consistency and qualitative... So there's more that level of how do the policy elements fit together than to try and do a quantitatively and put all these things together” (Interviewee I)</td>
</tr>
<tr>
<td>Strategy as a Package</td>
<td>absent</td>
<td>“You're never going to achieve that, it's not possible to integrate things to that level”...“there were no actual obvious conflicts or contradictions but I mean what you're talking about, there's so many permutations”...“I don't think it's feasible” (Interviewee J)</td>
</tr>
</tbody>
</table>

Table 13. Displayed degree of adaptability for the Melbourne 2030: Planning for Sustainable Growth document

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>RATING</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation</td>
<td>weak</td>
<td>“Well, there are companion documents…” (Interviewee H)</td>
</tr>
<tr>
<td>Monitoring</td>
<td>weak</td>
<td>“we needed to have an ongoing process so the document is a living document, without being so flexible that it keeps getting changed...So it was put there to flag that the process was important and ought to be ongoing rather than trying to spell it all out” (Interviewee I)</td>
</tr>
<tr>
<td>Indicators</td>
<td>absent</td>
<td>“On balance it would probably have been better if they had been but I wouldn't say it's essential. You could have the indicators separately” (Interviewee J)</td>
</tr>
<tr>
<td>Learning as a set process</td>
<td>weak</td>
<td>“It was a very salutary experience for planners, I think because your heads might be full of theory and so on and we're used to dealing with other public servants or developers (indistinct) in front of the public you might get some quite different perspectives, yes, that's great” (Interviewee J)</td>
</tr>
<tr>
<td>Public Participation</td>
<td>strong</td>
<td>“I guess what we tried to do was load up the front end of the process so that what was actually developed and put out in the end, as far as possible, took on board what people wanted” (Interviewee G)</td>
</tr>
<tr>
<td>Webpage</td>
<td>weak</td>
<td>“Yes, we designed it. We did a communications strategy right from the beginning, part of that was a web page which was kept up to date...So it was an integral part of the whole plan was the web page” (Interviewee I)</td>
</tr>
</tbody>
</table>


6.2.2.1 Overview of ‘dynamism’

The document does not present high values for ‘technicality’ or for ‘adaptability’ criteria, but it does present a high value for public participation. The latter being the engine for both groups of criteria. For the ‘technicality’ criteria, the public needs technical information for full understanding of the document. In the case of ‘adaptability’, the public is in charge of triggering change and making the plan document evolve and adapt to new circumstances. These outcomes point at the results presented by Hill (1985, p. 175) where he stated that “instead of structured evaluation, the emphasis is on intuitive reasoning”.
With respect to public participation, this plan provides a common aspect with Ericksen’s et al. (2004) work; both M2030 and the plans from these authors’ study, emphasised inclusion of public participation at the beginning of the plan-making process. The authors (2004, p. 291) state that “too much effort had gone into public consultation early in the plan-making process over ‘issues’ and ‘objectives’, when only limited research on the environment had been done, and too little effort went into consultation with affected property owners late in the plan-making process over ‘methods’ and ‘rules’”.

In brief, since each of the Tables (Technicality and Adapatability) is considered to be part of a mechanism to produce better plans for sustainable development through a dynamic process involving SEA and backcasting, the rating shows limited ‘dynamism’ for the document. This is supported in the high presence of ‘weak’ and ‘absent’ ratings, where they are represented in eleven out of the thirteen ratings.

6.2.2.2 Supporting dynamism elements

Four criteria are discussed in this section: ‘sustainable development’ and its operationalisation in the plan document through TBL; ‘futures’, with a particular emphasis on techniques dealing with the future; ‘structure’, in relation to learning as an example of ‘dynamism’; and ‘plan document presentation’, which is based on the document analysis (Tables 14 and 15).
Sustainable development

In regards to the operationalisation of sustainable development, where triple bottom line is meant to be a suitable indicator for this purpose (Section 6.2.1.2), Interview G said that TBL was used for growth scenarios and for supporting work of the directions but not for the directions per se.

Another interviewee stated “I don't think we ever tried to define closely sustainability, we more said – if we're talking about sustainability we're talking about an holistic approach to urban development that recognises these social needs, the environmental needs, the economic needs without saying we expect to be able to run a series of tests that says a tick to every one of the box that has some criteria of sustainability.” (Interviewee I)

Therefore, if one uses TBL as an indicator of the operationalisation of sustainable development in the plan document, it is found that its inclusion is mainly through the analysis of physical growth scenarios, leaving a gap relating to how the directions perform under this indicator.

As observed with the Canberra Spatial Plan, Norton (2002, p. 7) points to the following reasons for the lack of operationalisation of sustainable development: “local officials do not recognize the need to incorporate sustainability into their land use planning and policy-making; do not know how to do so (i.e., lack technical capacity); lack the necessary financial and/or administrative capacity to do so; or lack the commitment to do so”.
Relating to the limited administrative capacity it was pointed out: “I think you've got to remember the kind of context in which this thing is being produced. I mean, this is a government document. In order to get approval from the government it also has to be proved or at least not disapproved of by other government departments who are not necessarily as focused on sustainability outcomes as this department is. This is to do with the structure of government. The government is organized along sector lines and silos basically but you've got economic departments, you've got social departments and you've got land use departments like this. So the whole structure of government is not designed in a way to promote sustainability. So that's problem number one with sustainability…” (Interviewee J)

This response relates to Hill’s (1985) findings of English structural plans where an overall coherent integration is missing, in this case a sustainable development image. This limitation is shown in the following response: “one has to remember this plan was prepared when we were part of the Department of Infrastructure. The Infrastructure Department was essentially transport and planning and they are much in that order...I'd have to say that the planning process, the preparation of the metropolitan plan was to a considerable extent built around that transport vision.” (Interviewee H)

In brief, results are showing that the use of TBL is limited to physical characteristics, in this case, growth scenarios based on the transport system relating to its implementation into the directions. This is indicative that the plan document is not operationalising the concept of sustainable development in full. Berke and Conroy
(2000, p. 30) point to this finding and state that “unless the planning field is able to go beyond the symbolic rhetoric to create more holistic plans that help communities move toward sustainability, the critics will be right- sustainable development will be nothing more than another popular fad in planning”.

Futures (techniques)

In regards to the exploration of alternative techniques to deal and comprehend the future it was found that forecasting is the main technique used for this purpose; just as Wachs (2001, p. 369) states: “plans today are descriptions of courses of action and enumerations of facilities that are needed to accommodate forecasts of changes in population, travel, residential needs, office space and the like.”

Similarly, an interviewee stated “we've traditionally done demographic forecasting and so that has always been the basis of all the strategies, start with the population, I suppose in a sense that's fair enough because everything else comes from that. Other than that there was no – I don't think there was any formal decision to select a technique.” (interviewee J)

These findings about ‘technicality’ are pointing at Ericksen’s et al. (2004) ‘lack of rigour’ and in some cases at Hill’s (1985) findings pointing at intuitive reasoning. The following response is indicative of this situation: “you'll probably be shocked to find how un-rigorous a lot of the plan preparation is about the techniques being used are not derived from manuals or from established modelling techniques. A lot of the
methods used are developed very much on the run and (indistinct) from a variety of sources.” (Interviewee H)

Another example in relation to the lack of rigour is in regards to the explicit inclusion of future generations: “This is what the planners are on about. I mean, that's – you know, they're thinking about the future. So there was no specific process or anything, formula but, yes, it's there.” (Interviewee J)

In relation to uncertainty and its explicit use in the plan document it was said that: “I don't really see the value in that because – not when it comes down to the actual plan document. You might have considered the uncertain future and alternative futures in some sort of issues type paper or discussion document. When it (indistinct) the plan I think it has got to say – not be 100 per cent certain but it has to be structured in such a way as to quickly indicate what is going to be done. So it's not a comprehensive approach, you are not trying to do everything.” (Interviewee J) Hence with this approach there is no alternative learning rather than the one offered in the plan document.

In brief, the techniques used to deal with the future with its nucleus in forecasting are pointing towards Stifel and Boswell’s (1999, p. 96) finding on their sample that “overall, comprehensive plans examined project the present forward more than they plan the future”.

Structure

The actual structure of the document is usually represented broadly in three parts: a facts base, plan detailed parts and implementation (Gruft & Gutstein 1972). The Melbourne 2030 plan document was not developed following a rational decision making process, where options are also considered. Rather, according to the data, the way the content is geared to improving the understanding from the reader: that is creating ‘stories’ is the main idea of the plan’s detailed parts.

It was found that the role of the document is also important in determining its structure. Interview G stated: “my view is that if you tried to make the final plan everything, it dilutes its primary purpose and for me the primary purpose, as important as learning in all of that is, I think there are very few people, general public especially, who sit down and read, you know...The primary users of this document are decision makers and people involved in the decision-making process. So for this plan it was written for that primary audience.” (Interviewee G)

From the previous two paragraphs it is possible to see how the structure of the document is generating a ‘dynamic process’, through learning, for decision makers (i.e. investors).

This can be complemented with a response that compares the current plan with previous plans: “the pictures, there are more pictures, there's more of an emphasis I believe on sort of boosterism. One has to remember in part it's a marketing document, it's a document to convince like the development industry in Melbourne or
development industry in Australia that there is a strategic vision for Melbourne and that if you come to invest in Melbourne it is in black and white or in colour in this case, it is clear what the government is after and what developments are permissible and what are not permissible.” (Interviewee H)

This decision-maker learning process can be reinforced by what is acknowledged as an outstanding part of the plan document, certainty. Interview G stated that an outstanding part of the document is “giving certainty for determining the areas for investing and areas for protection”. (Interviewee G)

Finally, as a way to measure integration within the document in terms of sustainable development, ‘cumulative impacts’ and the ‘consideration of the strategy as a package’ were considered as suitable indicators in this respect.

In this regard it was found that there is no integration of the policies as a package, therefore there is no information of what is the impact of the proposed overall strategy. The following response is indicative of this finding: “You're never going to achieve that, it's not possible to integrate things to that level...there were no actual obvious conflicts or contradictions but I mean what you're talking about, there's so many permutations...I don't think it's feasible.” (Interviewee J)

Plan document presentation

In particular this analysis is based on Tables 14 and 15. This analysis shows that this plan document does not have an action plan (it has six separate implementation
documents), and does not present indicators and monitoring section. According to Seasons (2003) the inclusion of monitoring in plans is a process heavily influenced by political realities. The present research did not analyse monitoring from this perspective, so one can not be conclusive in this respect. From a different perspective, the non-existence of indicators, as reported by Maclaren (1996), hinder communities from knowing if initiatives are having beneficial effects.

According to Ericksen et al. (2004), ‘organisation and presentation’ of the document is important to ensure that it is user-friendly. In this regard, the plan document presented some key characteristics, such as: high graphical component (flow charts, boxes, photographs and maps), internal cross referencing, appendix and, a three column display for text, which “is pleasing visually and provides flexibility in layout, especially when inserting tables and diagrams…” (Ericksen et al. 2004, p. 239).
Table 14. Melbourne’s plan document format analysis

<table>
<thead>
<tr>
<th><strong>Background</strong></th>
<th><strong>Melbourne 2030. Planning for sustainable growth</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Announce intention to develop strategy</td>
<td>December of 1999</td>
</tr>
<tr>
<td>Printed</td>
<td>October of 2002</td>
</tr>
<tr>
<td>Product of plan-making process</td>
<td>one main document and six implementation plans</td>
</tr>
<tr>
<td>Author</td>
<td>Department of Infrastructure</td>
</tr>
<tr>
<td>Level</td>
<td>City-region</td>
</tr>
<tr>
<td>Strategic Framework</td>
<td>Sustainable growth</td>
</tr>
<tr>
<td>Time frame</td>
<td>30 years</td>
</tr>
<tr>
<td>Executive summary</td>
<td>Yes</td>
</tr>
<tr>
<td>Foreward</td>
<td>Premier of Victoria, Minister of Planning and Minister of Transport</td>
</tr>
<tr>
<td>Sections</td>
<td>8 main sections:</td>
</tr>
<tr>
<td></td>
<td>The basis for Melbourne 2030</td>
</tr>
<tr>
<td></td>
<td>The Scope of Melbourne 2030</td>
</tr>
<tr>
<td></td>
<td>Focus on Melbourne</td>
</tr>
<tr>
<td></td>
<td>The Strategic Framework</td>
</tr>
<tr>
<td></td>
<td>Policies and Initiatives</td>
</tr>
<tr>
<td></td>
<td>Implementing Melbourne 2030</td>
</tr>
<tr>
<td></td>
<td>How to have your say</td>
</tr>
<tr>
<td></td>
<td>Appendixes</td>
</tr>
<tr>
<td>Core topics</td>
<td>A more compact city</td>
</tr>
<tr>
<td></td>
<td>Better management of metropolitan growth</td>
</tr>
<tr>
<td></td>
<td>Networks with the regional cities</td>
</tr>
<tr>
<td></td>
<td>A more prosperous city</td>
</tr>
<tr>
<td></td>
<td>A great place to be</td>
</tr>
<tr>
<td></td>
<td>A fairer city</td>
</tr>
<tr>
<td></td>
<td>A greener city</td>
</tr>
<tr>
<td></td>
<td>Better Transport links</td>
</tr>
<tr>
<td></td>
<td>Better planning decisions, careful management</td>
</tr>
<tr>
<td>Structure of the Topics</td>
<td>Directions, Policies and Initiatives</td>
</tr>
<tr>
<td>Action plan</td>
<td>No (Developed in other documents)</td>
</tr>
<tr>
<td>Appendix</td>
<td>Acronyms</td>
</tr>
<tr>
<td></td>
<td>Other government strategies</td>
</tr>
<tr>
<td></td>
<td>Technical reports</td>
</tr>
<tr>
<td></td>
<td>Consultation reports</td>
</tr>
<tr>
<td></td>
<td>Glossary</td>
</tr>
<tr>
<td></td>
<td>List of Topics (and policy number)</td>
</tr>
<tr>
<td></td>
<td>List of Information Boxes</td>
</tr>
<tr>
<td></td>
<td>List of figures</td>
</tr>
</tbody>
</table>
With respect to the high graphical component (box at the bottom of Table 15) and the three column display of the text, a reason for this is likely to be that, as it was said before, Melbourne 2030 is a marketing document. At this point it is worth highlighting the use of adjectives, such as: ‘better’, ‘prosperous’, ‘great’, ‘fairer’ and ‘greener’ as part of the titles of the policies.

A valuable resource in the plan document is the use of internal cross referencing. As stated before, this plan document is not guided by the classical sections of a plan (for example population, employment, housing, environment, land use, transport, etc.), instead it uses a ‘story’ method, therefore cross reference becomes important to follow through on any issue. This can also be complemented with the use of the documents’ glossary, which indicates topic and corresponding policy number.

Finally, in relation to the current plan document and previous plans, it was mentioned that “…there are some really striking similarities but memories seem to be very short. But 10 or 20 years nobody remembers any more. So I think most people just think...
this is a new document, sustainability, this is great, you know, how fantastic. You know, there's no connection with the past.” (Interviewee J)

Recalling Berke and Conroy’s (2000) research, they demonstrated that plans do not take a balanced approach towards sustainability; instead they tend to focus on livable built environments (historical goal in planning). The attention of the plans twenty or thirty years ago was on the physical aspects of the plan; from the response above it is possible to infer that this has not change. Further research on the implementation of this plan will confirm if the plan had positive effects towards sustainability or as with the Canberra Spatial Plan, Berke and Conroy (p. 30) point out “critics will be right-sustainable development will be nothing more than another popular fad in planning”.

6.2.2.3 Dynamism in brief in the Melbourne 2030: Planning for Sustainable Growth

In general terms, the plan document does not present clear examples of ‘dynamism’. An exception is the extensive consultation process which is central to the SEA-backcasting framework to spark ‘dynamism’. The other element that arose from this plan document is its particular presentation: a marketing driven document, which was aimed at giving certainty to decision makers. This is tackled in the document through the development of ‘stories’, encompassing the different elements of the strategy. In regards to sustainable development, the plan document lacks a technical base necessary to operationalise it.
6. Findings and Discussion

6.2.3 The Western Australian State Sustainability Strategy (WASSS)

Like the previous sections, this analysis first presents an overview of ‘dynamism’ based on Technicality criteria (Table 16) and on the Adaptability criteria (Table 17); it also provides a detail analysis for the ‘Supporting dynamism elements’. The aim of the latter analysis, as it has been said before, is to provide insights into how these themes have been treated in the documents, so that the operationalisation of sustainable development can be advanced. It is worth mentioning again, ‘dynamism’s’ objective is to aid in this operationalisation (see Chapter 4).

Table 16. Displayed degree of technicality for the Western Australian State Sustainability Strategy document

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>RATING</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision</td>
<td>weak</td>
<td>“So we came up with what we thought were reasonable visions and other people informed them by their written submissions to us” (Interviewee B)</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>weak</td>
<td>“I think it's more an unstated sort of assumption almost underneath that we know we are working with varying degrees of certainties and risks in a whole lot of areas” (Interviewee C)</td>
</tr>
<tr>
<td>Plan time frame</td>
<td>weak</td>
<td>“to give a sense that most of this we wanted to see done within 5 to 10 years. We didn’t want to think that this was all about things that our grandchildren had to do…The figure goes beyond the next year's budget and beyond the next election” (Interviewee A)</td>
</tr>
<tr>
<td>Monitoring time frame</td>
<td>weak</td>
<td>“what sounds like a reasonable amount of time” (Interviewee B)</td>
</tr>
<tr>
<td>Future Generations</td>
<td>weak</td>
<td>“Its implicit that the intergeneration element is considered…Certainly the language around the plan when it was released as a draft, as a final, was a plan…for our children and their children” (Interviewee B)</td>
</tr>
<tr>
<td>Cumulative Impacts</td>
<td>absent</td>
<td>“I’m not sure we could say we did that because…one is looking at business, one at community, one at settlements, I don’t think they need that kind of cumulative approach” (Interviewee B)</td>
</tr>
<tr>
<td>Strategy as a Package</td>
<td>absent</td>
<td>“A number of people said what you should do is produce separate documents for each of those six areas. It was rejected by almost everyone we showed it to, once you realise each of those sections builds on an links to the other” (Interviewee A)</td>
</tr>
</tbody>
</table>

Table 17. Displayed degree of adaptability for the Western Australian State Sustainability Strategy document

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>RATING</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation</td>
<td>strong</td>
<td>This process is based on two areas “one is that each agency will now go and do a sustainability action plan which will implement each of the items that they have to do, and go beyond; and second, the Sustainability Round Table was established and will implement the community and industry parts of it and that will be done through partnerships” (Interviewee A)</td>
</tr>
<tr>
<td>Monitoring</td>
<td>weak</td>
<td>“A monitoring evaluation framework should be part of that exercise and developed at some point in the future rather than to do it in a way that was rushed and do it in a way that was possibly poorly thought through” (Interviewee B)</td>
</tr>
<tr>
<td>Indicators</td>
<td>absent</td>
<td>“In the final section we removed those because – particularly from strong lobbying from me because I was very concerned that they were not well thought through in the context of those sections and it was something that should be done in a much more considered manner at a time in the future” (Interviewee B)</td>
</tr>
<tr>
<td>Learning as a set process</td>
<td>weak</td>
<td>“… it was a happening thing and one that we just had to keep the lines of communication open in a serious kind of way and just keep having lots of meetings” (Interviewee A)</td>
</tr>
<tr>
<td>Public Participation</td>
<td>strong</td>
<td>“You can’t actually do the thinking without it…we are going to get the public involved in this otherwise we’ll never have the resources to solve this” (Interviewee A)</td>
</tr>
<tr>
<td>Webpage</td>
<td>moderate</td>
<td>“It was thought from the beginning but it was mainly thought as something that you provide, publicity and provide information but it became much more of a resource and a credibility document” (Interviewee A)</td>
</tr>
</tbody>
</table>


6.2.3.1 Overview of ‘dynamism’

The document does not present high values for ‘technicality’ but it presents some good values for ‘adaptability’, for example in the cases of implementation and public participation. These two criteria represent the potential of this plan document to be adaptable over time. The development of an implementation section with specific actions to different government agencies, gives the plan a wider understanding within the institutional arena. In addition, the strong use of public participation is also a ‘must’ if the plan is going to be implemented, monitored and adapted to new society circumstances. In this regard the document was considered a first step towards a more sustainable strategy: “it is still a first generational document so the next generation
with sustainability strategy, I suspect, will be a lot more informed by those sorts of issues to do with the role of monitoring, recording against the document, the integration with status sustainability recording, possibly the use of forecasting and backcasting as techniques that might inform future versions and the like” (Interviewee B).

The assessments from the ‘technicality’ Table points at the results presented by Hill (1985, p. 175) where he said that “instead of structured evaluation, the emphasis is on intuitive reasoning”. Ericksen et al. (2004, p. 290) refer to this type of results as ‘lack of rigour’, where the lack of time and skills is a major influence on the results.

In brief, since each of the Tables (Technicality and Adaptability) is considered to be part of a mechanism to produce better plans for sustainable development through a dynamic process involving SEA and backcasting, the rating shows limited ‘dynamism’ for the document. This is supported in the high presence of ‘weak’ and ‘absent’ ratings, where they are represented in ten out of the thirteen ratings.

The next section discusses other dynamic elements which complement the first overview analysis.

6.2.3.2 Supporting dynamism elements

Four criteria are discussed in this section: ‘sustainable development’ and its operationalisation in the plan document through TBL; ‘futures’, with a particular emphasis on techniques dealing with the future; ‘structure’, in relation to learning as
an example of ‘dynamism’; and ‘plan document presentation’, which is based on the
document analysis in Tables 18 and 19.

Sustainable development

Even though this plan did not score high on techniques supporting the
operationalisation of sustainable development in the document, it presented an
alternative approach. The following response reflects this: “it (the W.A.S.S.S) is about
configuring the system to work towards sustainability, not necessarily defining the
sustainable outcome…” (Interviewee C). In order to develop sustainability in the
state, it was mentioned the need to work on governance. For example it was stated
that the W.A.S.S.S “attempts to lay out future institutional arrangements, to embed
sustainability into government decision making.” (Interviewee B)

With respect to the use of the TBL, it was mentioned “that’s from the nineties, that is
not a 21st century concept” (Interviewee A). Nevertheless, it was stated that the
document had an ‘eleven bottom line’, which correspond to the principles guiding the
strategy: “we have an 11 bottom line, we had 11 principles”... “every now and then
we’d check back and say, how does this principle apply to government, to settlements,
to natural resources?” (Interviewee A)

Although it lacked techniques and supporting tools, the operationalisation of
sustainable development in the plan document was provided by the qualitative
comparison of the goals with the principles of the strategy, which were offshoots of
the concept of sustainability itself. Additionally, the WASSS developed their own
definition of sustainable development for the document. It was mentioned in Chapter 4 Sustainable Development and Dynamism that this development is a feature of the SEA-backcasting framework, where the definition of the concept of sustainable development can be a target or image driving the framework (section 4.2.1.1).

Futures (techniques)

In regards to the exploration of alternative techniques to deal and comprehend the future it was found that forecasting and scenarios were the main technique used.

For techniques dealing with the future, the results show few techniques were used. For example, the following response is indicative of the situation: “so we came up with what we thought were reasonable visions and other people informed them by their written submissions to us” (Interviewee B). This can be seen as Hill’s (1985) intuitive reasoning, due to the lack of supporting techniques.

Another example, supporting the lack of techniques in treating the future was in relation to uncertainty: “I think it's more an un-stated sort of assumption almost underneath that we know we are working with varying degrees of certainties and risks in a whole lot of areas” (Interviewee C). Previously (section 4.2.1.2), it has been pointed out on the necessity of being aware of these assumptions so that decisions can be more responsible.
In relation to future generations it was said “it is implicit that the intergeneration element is considered…Certainly the language around the plan when it was released as a draft, as a final, was a plan…for our children and their children.” (Interviewee B)

In brief, the techniques used to deal with the future, with its nucleus in forecasting and scenarios, do not provide for an appropriate consideration of the future. Hence similar to the finding of Stiftel and Boswell (1999, p. 96) “overall, comprehensive plans examined project the present forward more than they plan the future”.

Structure

Typically the structure of the document is represented broadly in three parts: the fact base, the plan’s detailed parts and implementation (Gruft & Gutstein 1972). Although, the ‘fact base’ for this plan document is more the explanation of the goal, sustainable development, rather just the actual diagnosis of the region by issues (i.e. population, employment, transport, etc). In the plan document, there were no other alternatives identified to pursue sustainability, rather than the one presented in the document. In terms of providing alternatives it was said “that's not the way government work. They want to be able to show they have made a decision at some point. We would have had much less impact on change if we had continued to say this or that could be done. We had to show that we had considered the options and that's the way we're going.” (Interviewee A)

With respect to learning, the implementation section has the higher potential to generate this process due to the specific tasks it sets to other institutions and
stakeholders. For example, it was stated that: “the document acknowledges that there is a whole area of emerging stuff that still needs to happen with industry and other stakeholders. So that by setting up processes for that to happen the document has discrete actions but it also has actions which will enable other processes to occur over time.” (Interviewee B)

In terms of measuring the integration of sustainable development within the document ‘cumulative impacts’ and the ‘consideration of the strategy as a package’ were considered as suitable indicators in this respect. It was found that there is no integration of the policies as a package; for example, there is no information on the impact of the proposed overall strategy. This criterion was misunderstood by the interviewees and interpreted in terms of the layout of the document: “There was a significant level of overlap between those different sections. So that in practice and to make the thing practical and readable we had to make it accessible in some way, shape or form and so we chose a focus on global issues, governance issues, natural resources and the like as ways to cut up a very complex sort of approach.” (Interviewee B)

Finally, in regards to the current plan document and previous plans it was mentioned that “we had land use plans…but we haven’t had an overall strategic vision for the state which brings together this new way of thinking. So it's entirely new” (Interviewee A). Another interviewee stated that the only difference is the scales: “I think they are trying to deal with the same issues. This one is broader, and the previous one is more narrowed down to a land use planning context.” (Interviewee C)
Plan document presentation

In particular this analysis is based on Tables 18 and 19. This analysis shows some key features in this plan document. For example, the development of a vision for each of the goals, a section solely with the purpose of explaining sustainable development, a detailed implementation plan, no indicators and no monitoring section.

Table 18. Western Australia’s plan document format analysis

<table>
<thead>
<tr>
<th>Background</th>
<th>Hope for the future: The Western Australian State Sustainability Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Announce intention to develop strategy</td>
<td>5 &amp; 13th of November 2001</td>
</tr>
<tr>
<td>Printed</td>
<td>September of 2003</td>
</tr>
<tr>
<td>Product of plan-making process</td>
<td>One main document</td>
</tr>
<tr>
<td>Author</td>
<td>Department of the Premier and the Cabinet</td>
</tr>
<tr>
<td>Level</td>
<td>State</td>
</tr>
<tr>
<td>Strategic Framework</td>
<td>Sustainability</td>
</tr>
<tr>
<td>Time frame</td>
<td>Long term (5-10 years Implementation)</td>
</tr>
<tr>
<td>Executive summary</td>
<td>Yes</td>
</tr>
<tr>
<td>Foreward</td>
<td>Premier of Western Australia</td>
</tr>
<tr>
<td>Sections</td>
<td>4 main sections:</td>
</tr>
<tr>
<td></td>
<td>- Introduction</td>
</tr>
<tr>
<td></td>
<td>- Developing a framework for sustainability</td>
</tr>
<tr>
<td></td>
<td>- Topics</td>
</tr>
<tr>
<td></td>
<td>- Implementation and action plan</td>
</tr>
<tr>
<td>Core topics</td>
<td>Sustainability and governance</td>
</tr>
<tr>
<td></td>
<td>Contributing to global sustainability</td>
</tr>
<tr>
<td></td>
<td>Sustainable natural resource management</td>
</tr>
<tr>
<td></td>
<td>Sustainability and settlements</td>
</tr>
<tr>
<td></td>
<td>Sustainability and community</td>
</tr>
<tr>
<td></td>
<td>Sustainability and business</td>
</tr>
<tr>
<td>Structure of the Topics</td>
<td>Visions &amp; Goals, Priority Areas, Actions</td>
</tr>
<tr>
<td>Action plan</td>
<td>Yes</td>
</tr>
<tr>
<td>Appendix</td>
<td>No</td>
</tr>
</tbody>
</table>
Table 19. Western Australia’s plan document particularities

<table>
<thead>
<tr>
<th>Distinct Features</th>
<th>Background</th>
<th>Hope for the future: The Western Australian State Sustainability Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature References for further information</td>
<td>Explicit</td>
<td></td>
</tr>
<tr>
<td>Use of quotes in the text from public</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Inclusion of plan making process</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Visions</td>
<td>one for each topic</td>
<td></td>
</tr>
<tr>
<td>Indicators</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Monitoring section</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Internal cross reference</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Flow charts</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Boxes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Number of photographs/ total pages</td>
<td>61/304</td>
<td></td>
</tr>
<tr>
<td>Maps</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

In regards to indicators and monitoring, as explained before, the inclusion of monitoring in plans is a process heavily influenced by political realities (Seasons, 2003). The present research did not analyse monitoring from this perspective so, it is not possible to comment on the political perspective. From a different perspective, the non-existence of indicators, as reported by Maclaren (1996), impede communities to know if initiatives are having beneficial effects. In regards to monitoring it was stated that: “A monitoring evaluation framework should be part of that exercise and developed at some point in the future rather than to do it in a way that was rushed and do it in a way that was possibly poorly thought through” (Interviewee B). The lack of time was also identified as a reason partially explaining the poor scores of ‘monitoring’ in Ericksen et al. (2004) work.

In terms of ‘organisation and presentation’ of the document, according to Ericksen et al. (2004) it is important to ensure that it is user-friendly. In this regard, the plan document presented some key characteristics: first, the inclusion of how the plan was constructed; second, a graphical component based on flow charts, boxes and photographs; third, the inclusion of references for further information (books,
6. Findings and Discussion

webpages, etc); and fourth, the addition of a brief overview of each of the priority areas in terms of vision, objectives, actions underway, actions, global opportunities and further information.

For the graphical component (box at the bottom of Table 19), it was essential to deliver the message of the document. It was stated that: "You could flick through and see a nice box which explains it, dramatises, tell a story…" (Interviewee A). In relation to the flow charts, the plan document offered good examples. One of the flowcharts presents an overview of the plan document structure. A second group of flowcharts provide images of the connections between the selected goals, agencies and the sustainability framework. The relevance of this tool is stated in the following response: “it (flowcharts) did help me to understand that simple structural diagrams are very important to understanding where something goes. And the structure of the document, if we wanted it to be integrated, had to have that sense to it, that each individual didn’t have to read the whole thing to get the whole story.” (Interviewee A)

The existence of ‘global opportunities’ and ‘further information’ sections in the plan document (the latter also including webpages), give the document a feeling of understanding sustainability as a global concern, and of connectivity to the world.

6.2.3.3 Dynamism in brief in the Western Australian State Sustainability Strategy

Although the plan document does not presented clear examples of ‘technicality’, it provided better results for the ‘adaptability’ criteria. Strong public participation and implementation are the main outputs of this assessment. According to the SEA-
backcasting framework, these results would not provide a full dynamic process to occur, in particular due to the lack of supporting techniques to operationalise sustainable development. Having said that, it was found that the WASSS document with its particular operationalisation of sustainable development based on setting up the system for sustainability, triggered a learning process between agencies, government and society. This is also considered ‘dynamism’.

6.2.4 Overview of ‘dynamism’ in plan documents

Summing up this section, three set of interviews (one for each plan document), a plan document analysis and a literature review were used to present and describe the different concepts for ‘dynamism’ (i.e. technicality, adaptability, sustainable development, futures, structure and plan document presentation). From this description, a brief review with each of the highlights for each plan document was provided at the end of each case study. In general terms, ‘dynamism’ is a set of concepts not found in current strategic plan documents. However, the existence of strong public participation, indicators, and implementation in some of the documents set the arena for Australian planning to develop ‘dynamism’, and therefore enhance its planning for sustainable development.

Since this section presented the case studies individually, the following section’s role is to relate the three case studies and discuss their generalities. In this research, meaning from the data takes place once its main findings are put together and analysed.
6.3 Discussion

This section presents the general discussion on the findings of ‘dynamism’ criteria in two parts. The first part presents the main findings arising from the case studies. The second part discusses the different groups of findings, i.e. SEA-backcasting framework, sustainable development, document presentation, and additional findings.

At this point, it is important to highlight that the findings of the research correspond to the individual analysis of the case studies. There is no comparison between the case studies since the aim of the research is solely to explore the existence of the dynamism criteria in the documents. Additional analysis or information (i.e. political, environmental, socioeconomic) in regards to the case studies, do not contribute to this particular exploration or to an enhanced understanding of dynamism.

6.3.1 Main findings

This section provides a summary of the key findings of the research, divided into four parts: SEA-backcasting framework, sustainable development, plan document form and additional findings. They represent the overarching themes underpinning the findings.

SEA-backcasting framework

The findings under this heading present an overview of how the ‘technicality’ and ‘adaptability’ criteria will influence the process of plan-making under this framework.
a) ‘Adaptability’ criteria presented better scores than ‘technicality’ criteria, mainly due to public participation, indicators and implementation criteria.

b) The techniques dealing with the future in these plan making processes have forecasting as its nucleus, therefore the preparation and knowledge of the future is relying on forecasting (see 4.2.1.2. Sustainable development and futures information).

c) Although the three case studies presented ‘strong’ public participation at plan making stages, its relevance for further stages of planning like monitoring and reviewing was not apparent.

In general, processes such as feedback, monitoring and amendment were limited by the lack of sufficient information.

**Sustainable development**

The findings under this heading represent the major outcomes of analysing sustainable development through the ‘dynamism’ lens. It proved useful in two ways: in terms of the relationship between the concept of sustainable development and the plans’ scope; and on the further operationalisation of sustainable development in the plan making process.

d) The difference in geographical scope of the plan documents determines a particular understanding of sustainable development. The Western Australian State Sustainability Strategy document aimed at setting a system for
sustainable development, whereas the Canberra Spatial Plan and the Melbourne 2030: Planning for Sustainable Growth documents aimed at a more ‘physical’ interpretation of sustainability around compact development and transport network.

e) Practice indicates that sustainable development is a concept considered more at the plan-making stage than at implementation stages. In the three case studies, the consequences of implementing the plan’s goals/policies and their potential to generate aggregate impacts on the environment (economy, society and environment) in time are not considered.

**Plan document form**

These findings are indicative of the type of documents that are currently presented to the public. They also highlight some of the changes that the next generation of plan documents for sustainable development should be experiencing.

f) Monitoring is not considered as a section itself in the three plan documents. In addition, use of indicators to follow up plan documents was not the general case; the Canberra Spatial Plan document is the exception.

g) A commonality between the three documents was the absence of alternative options to the one proposed. From this it its possible to conclude that, certainty to decision makers was one of the messages the documents were delivering.
h) Apart from having, in general terms, the same document structure (a background with more or less detail depending on the document, the policies of the plan, and an implementation section), there was no particular layout followed by the three plan documents. Each of them provided distinct features.

**Additional findings**

The findings under this heading are of two types. The first represents issues for further exploration in plan documents, such as the webpage. And the second presents deductions from previous findings useful for locating the research on current planning practice.

i) The webpage’s current auxiliary role as documentation provider, feedback collector, and communication supporter, for the three plan documents, contrasted with the high expectations of the future for the webpage in planning.

j) Some of the findings taken together point to the dominance of economic issues over environmental or societal matters in the plan documents. Elements such as: lack of futures information, the absence of options in favour of certainty, the weak translation of sustainable development into the documents and the several user friendly features of the documents.

k) Even though the plan-making process involved extensive public participation in all three cases, the plan document benefits are less extensive and steer more
towards economic agents, giving equity considerations an unbalance treatment in the documents.

The next section uses the previous findings and develops a story line based on the need for ‘dynamism’ in plan documents.

### 6.3.2 What do the main findings mean for ‘dynamism’?

Berke and Conroy (2000) stated in their work that ‘dynamic process’ is a characteristic of sustainable development that extends from the formulation of the plan. The authors argue that this characteristic was not considered in their research because plans do not fully account for procedural dimensions. Although in their study this characteristic was linked with SEA and urban sustainability reports. Indeed, in the case of these two tools, the ‘dynamic process’ is the result of the community being involved in the development of these reports and then reviewing them in the quest to be more sustainable. However, this research notes other concepts (i.e. SEA, backcasting, plan document presentation, webpage) that if considered at earlier stages of the plan making process, can also create a ‘dynamic process’ so benefit the environment. As a result, the consideration of the ‘dynamic process’ was expanded with the current research, to the starting stages of plan-making.

The concept of ‘dynamism’ for this particular research was developed from the literature to explore dynamic mechanisms (i.e. futures considerations, techniques supporting sustainable development and futures knowledge, and ‘learning’ from the
plan document through its format) in the plan document. The exploration was attempted using several criteria.

These criteria are the result of drawing on SEA and futures research (backcasting). The latter is based on the claim by Cole (2001, p. 372) that “if planners are to embrace the future, their plans must begin with the future”, which usually has not been the case (Myers & Kitsuse 2000). These two elements provided a rational planning process, a means to consider time and the future (i.e. cumulative impacts, future generations, backcasting), and the need to involve communities to develop its own image of the future, i.e. sustainable development.

In terms of the results of this research, from the interviews it was found that there is a lack of techniques in plan documents which can operationalise sustainability, and that the existing techniques based on forecasting do not show any significant advancement in terms of including sustainable development. This leaves the documents with incomplete input information in relation to the future, hence limiting the range of plan alternative options, and making the document a projection of the present (as Stifel and Boswell (2000) point out in their research of comprehensive plans in Florida (USA)).

On the other hand, the plan documents showed mechanisms in their initial stages able to spark ‘adaptability’ and hence ‘dynamism’ into the document. Although, the presence of “dynamic” elements such as: indicators, monitoring section and a detailed implementation section was not always the case. In contrast, the general case for all of the plans processes was the strong utilization of consultation and public involvement.
With respect to the involvement of community, the results show a ‘strong’ utilization of the community in the early stages of the plan. However other relevant criteria within the document, shows community involvement in further planning processes, such as monitoring and indicators (except for the CSP), in a less dominating role. These results are comparable with Ericksen et al (2004), where consultation was also extensively done at the initial stages of the process with emphasis on ‘issues’ and ‘objectives’, but truncated at later stages. It is worth noticing that public participation is at the centre of the ‘adaptability’ and ‘technicality’ criteria, hence the restriction of public involvement due to any reason (in this case the lack of a monitoring section and in some cases indicators) jeopardises the evolution and flexibility of the plan document in time and makes it a short-lived document.

In relation to the absence of indicators in the M2030 and the WASSS, the main reason pointed out by the interviewees was the lack of time for analysis and hence selection of the right indicators. It is important to note how the plan which had a more precise role, the CSP provided indicators whereas the other two (with a more strategic overview of the city-region/ state) did not provide indicators.

In a more encompassing level for indicators, monitoring criteria showed low scores as well, since the plan documents did not offer the same attention to monitoring as to other sections of the plan document. This finding can be detrimental to sustainable development since from literature its known that a report (i.e. SEA) without monitoring does not show commitment to achieve objectives and targets (Fisher 2002b). And without indicators, it would be impossible for communities to evaluate whether the initiatives are having beneficial effects (Maclaren 1996). This finding is
also shared by Counsell (1998) in his examination of structure plans in England. The author found that only a minority of the plans analysed make use of indicators and targets.

In terms of sustainable development, the previous findings on public participation, monitoring and indicators point to a limited consideration of sustainable development in the plan making process. It is prominent at initial stages in shaping visions and aiding in the assessment of physical scenarios, but it fades at implementation and monitoring stages. This is also supported by the absence of cumulative impacts analysis of policies and actions proposed in the plan documents, and the lack of analysis of how policies will extend and interact with each other. As Helling (1998) noted visioning studies are rarely linked to feasibility studies of change, these documents are no exception.

In relation to the selected criteria to analyse sustainable development, it was found the criteria chosen to be sufficient to show that the scope (state vs. city-region) of the plan document affects the operationalisation of sustainable development into the document, but fell short at providing information in relation to the different ways of integration prompted by these two scopes. Examples of these two ways of integration are the WASSS on one hand and the CSP and the M2030, on the other hand. The former provides a state level integration of sustainability where setting the system especially at the governmental level concentrates the attention on the plan document; whereas the latter group is more narrow in geographical scope, therefore dealing more with growth scenarios of the city-region.
Ericksen et al (2004) also found some differences in the results when comparing regional plans (RP) with district plans (DP). Even though the geographical areas do not match completely with this research, results indicate that the size of the area under analysis has an impact on the way the guiding idea of the document (a mandate for the New Zealand sample, or sustainable development for this research) is understood and operationalised within the plan document. The results from Ericksen et al (2004) point to the RPs having better scores in terms of ‘interpretation of the mandate’, ‘fact base’ and ‘identification of issues’; versus better scores for DPs in relation to ‘organisation/presentation’ and ‘monitoring’. These results coincide with the present study where the document representing a larger scale (WASSS), provides better interpretation of sustainable development in comparison with the other documents, those representing city-regions (M2030 and the CSP). Also, the results only show the presence of indicators in the lower scale document (CSP).

In terms of the analysis from the plan document lay out, in Section 4.2.2. ‘Reporting’ it was said that ‘dynamism’ can also be understood as the understanding/learning of the report through the inclusion of all relevant material, so that the plan can be improved through public debate. The results, based on Kent’s (1990) legislative use of the plan and Gruft and Gutstein’s (1972) comprehensive planning reports, were found to be limited. For example, a common feature between the three documents was the absence of alternative options in the document to the one proposed. This limitation does not reflect a rational decision-making process. Since it discourages public participation, it curtails the opportunities of making better plans based on previous plans and it restricts and steers learning towards the only presented proposal. As a consequence the plan documents are targeted to a particular public that requires these
as accepted conditions for actions, i.e. decision makers (private sector). Hence, as it was said before, certainty is the message these documents want to provide to its readers.

In contrast to the limitation on wider learning from plan documents, decision makers’ learning was targeted through a wide variety of particular distinctions in the document layout aiming for readability, comprehension and ease of use (Ericksen’s et al. (2004) ‘Organisation/ presentation’ criteria). Some examples of the range of these distinctions are presented below, from:

1) a plan document with no vision (CSP), to a vision for each goal (WASSS);  
2) a plan document with more than two photographs per page (M2030), to almost no photographs (WASSS);  
3) a plan document with multicoloured maps (CSP), to no maps (WASSS);  
4) a plan document with explicit links to further information (WASSS), to no links (M2030, CSP);  
5) a plan document with appendix (M2030), to no appendix (CSP, WASSS);  
6) a plan document with ninety two pages length (CSP), to three hundred and four pages length (WASSS); and  
7) a plan document with a three column lay out (M2030), to a single column lay out (WASSS).

These features suggest an effort to influence decision makers, although insights into which plan document and features are more influential would not be available until implementation and review of these documents occur.
From a different perspective, the results of this research can provide additional insights into the documents once the market and political forces are considered. This further analysis is considered central to fully understand the role that dynamism and its criteria play in planning for sustainable development.

In the following paragraphs links from previous literature are put forward to clarify the findings’ role in the planning context, even though these forces are outside the present research.

From the literature review it follows that the research is heavily influenced by a rational planning approach, based around procedural tools such as SEA and backcasting. This research advocates for an increase in the information supply (based on techniques) in plan documents which can facilitate the translation of sustainable development into these documents. Since the plan documents are produced by government, then it is the government’s task to provide this information (that is, if planning for the benefit of the ‘public’ is considered to be a number one priority). In this regard Moloney (2001), in reference to the particular case of Melbourne, mentions that the purpose and practice of planning in the ‘public interest’, including social and environmental goals, have diminished in favour of an increasing involvement of planning in economic growth; the latter achieved through the urban development process and place-marketing. This indicates a change in the planning purpose. Moloney (2001) refers to this as a redefinition of the role of the government to facilitate the expansion of the market. Furthermore Gleeson and Low (2000) state that planning is not used any more to correct and avoid market failures, but to
facilitate development through spatial regulation. This statement generally supports the comments collected from the Melbourne 2030 document and the Canberra Spatial Plan in relation to the economic focus of the strategies.

Therefore, the lower results for ‘technicality’ criteria due to lack of futures information, the absence of options in favour of certainty, the weak translation of sustainable development into the document and the several user friendly features of the documents towards city or region marketing, point to a plan document shaped by economic agendas of the private sector rather than for public interest goals shaped by government. Previous literature presents examples in this regard. For example Moloney’s (2001, p. 216) work when analysing the document ‘Creating prosperity: Victoria’s Capital City Policy’ concludes that “the document was therefore to show that the State and the private sector were united in their agendas to market an image of a ‘business friendly environment’ to global investors”.

Certainly, this finding is expected since the literature about neo-liberalism and strategic planning (Section 2.2) and some of the interviewees pointed at the influence of market in the plan document. However, the fact that the findings support this reality, shows the potential of the SEA-backcasting alternative approach to enhance plan making. In Figure 19 some of the findings from Moloney (2001) are adapted and SEA, as treated in this dissertation, is included as a way to close the gap between neo-liberalism and planning for sustainable development.
Figure 19. Usefulness of SEA and techniques under neoliberalism

The figure represents three cases in current planning. The first case (A) schematises how Vancouver and Copenhagen pursue social and environmental goals despite the rise of globalisation and neoliberalism (Moloney 2001). The second case (B) schematises how globalisation and neoliberalism have come to dominate the planning
agenda in Melbourne since the early 1990s (Moloney 2001). The third case (C) schematises how areas under the case (B) situation can improve in their desire for more balanced planning.

In the latter case, the inclusion of techniques such as SEA in the planning process will guarantee the consideration of information that, due to its own features, aids in the operationalisation of sustainable development (cumulative impacts, options, scenarios, environmental base line, public participation and others). Plus, it would be able to stabilise planning agendas to such a point that the ‘public interest’ regain the central role in planning.

6.4 Limitations of the study

In general, the findings from this research although relevant for ‘dynamism’, present limitations mainly related to uncertainty of results due to several reasons. Specifically there are limitations due to the small size of the plan document’s sample; the small size and characteristics of the interviewee’s sample; and the use of only one interpretation for plan documents—the researcher’s—when there are more. This section concentrates on these and other limitations present in the research.

The size of the sample, three plan documents: Even though the plan documents were selected to be representative of city types, the findings of this research do not provide a full understanding of all the plan documents in Australia. However they provide a starting point for this line of research and in the absence of other data, a strong indication of the state of Australian strategic planning.
The characteristics of the interviewees sample: If the emphasis of the research was on techniques, probably a major role from technicians or supporting staff rather than on managers/authors would have provided more detailed information about these techniques. Nevertheless, the preference of managers/authors as the main group provides the research with overarching issues from this target group.

The type of plan documents: The findings from the documents are a result of analysing broadly two type of areas: one representing a city (CSP) or a city-region (M2030); and second, a state (WASSS). Certainly this characteristic of the sample has an effect in the obtained results. This is particularly the case in the internalisation of sustainable development; therefore careful interpretation of the findings is required in further applications of this research.

Reliability: The analysis of the interviews and documents was entirely developed using the researcher’s understanding of the world, therefore results and findings reflect this particular standpoint.

Width over depth: Due to the generation of the concept of ‘dynamism’ for this particular research, using several concepts representing a broad range of characteristics, there was a need to relinquish further details and explanations of the selected criteria. Emphasising width over depth was considered essential for integrating the diverse criteria to attain the main purpose of this research.
The assumption of the plan document as being representative of what a plan process is: The findings from this research are limited to the analysis of the plan document and from its immediate surrounding, the plan making process. This restriction proved to be difficult for the interviewees, since they argued that there was material underpinning the plan document that was not considered by this research. This statement is valid, however a limited coverage had been chosen so that the scope of the research was manageable. It is possible that some data may have been overlooked.

The exclusion of exogenous forces such as the market, and endogenous and exogenous forces such as political forces from the plan document analysis: In order to be consistent with a rational making process with an emphasis on techniques, and to make the interviews with key planners less open to complexity, the data were gathered concentrating solely on technical aspects.

The detachment from the area of strategic planning: The consequence of building the literature review using mainly examples of comprehensive local/district plans (i.e. the New Zealand experience in section 4.3.2) in regards to similar criteria of ‘dynamism’, is that this study does not provide findings in relation to strategic planning literature even though the sample analysed belongs to this area. Nevertheless some links are presented in this regard.

6.5 Overview

In brief, this chapter has presented the outcome of the research. This was achieved in three steps: a) description of each of the case studies from the interviewee point of
view and document analysis; b) an overall discussion presenting the major findings and its relevance towards the need for ‘dynamism’ in plan documents; and c) the limitations of the study, where uncertainty of the results are the main concern.

The exploration of ‘dynamism’ in this research has uncovered an alternative way to consider the plan-making process, particularly plan documents. Findings show that sustainable development generally remains a vague concept for practitioners. This is not only the case for this Australian sample; Counsell (1998) in his examination of English structure plans found that “the conclusions of this study are not therefore unexpected, showing that whilst there is a degree of awareness about the concept of sustainable development in county planning authorities, the translation of this awareness into operational policies is, in many cases, proving difficult” (Counsell 1998, p. 189). However, use of the concept of ‘dynamism’ presents alternatives that allow plan documents to operationalise this concept, and which provide practitioners with a larger bag of approaches and concepts, that could lessen the gap between rhetoric and the delivering of sustainable development.

The next chapter provides the overall conclusions of this research and the areas for further research in this topic.
Chapter 7

CONCLUSIONS

This thesis has explored a sample of current Australian strategic plans in relation to the operationalisation of sustainable development within the plan-making process, especially in plan documents. Nevertheless, it is central for this research and future research to be aware of the limitations it presented. Mainly these limitations are concerned with the uncertainty of results due to the limitations of the sample (of plans and interviewees), and the use of only one interpretation for plan documents - the researcher’s one. However, although findings can not be generalised for Australia, they do offer a useful guide on the operationalisation of sustainable development for future Australian strategic plans, especially where some of them coincide with international planning practice (Counsell 1998; Ericksen et al. 2004).

In order to enable a full understanding of the conclusions of this research, this concluding chapter is divided into two sections. The first section presents how future investigations can be improved from a methodological point of view; and also notes the opportunities for further research. The second section presents the overall conclusions from the dissertation.
7.1 Further Research

Methodological input

For further research to be built on the present dissertation, four adjustments to the methodology are necessary.

First, if possible, prior to the interview, time is set aside to explain what is being explored (‘dynamism’ in this case). This has two effects, first the interviewee gets to know the researcher; and second, because the topic of the interview is not of day-to-day use, it will allow the interviewee to start thinking through ideas and concepts.

Second, it will be necessary to increase the number of interviewees so that there is at least one representative from the environmental area or, even better, if there is a person in charge of sustainable development; one representative (operational staff) familiar with technical aspects or maybe more than one according to different issues or topics the plan document is covering; and as in the case of this research, one representative in a managerial role. Of course, such increases will also mean developing interview guides according to their specific disciplines.

Third, a direct consequence of this expansion means that Excel spread sheets will become too difficult to handle and some other software (i.e. En-vivo, Nudist) would have to be used to deal with this amount of information.

Fourth, in regards to the operationalisation of sustainable development in the documents, apart from using the layout and structure of the document to complement
the analysis of the document from the interviews, the actual implications of the written policies and proposals of the document can be studied, thus enhancing the understanding of sustainable development in the document. If the future of plans is the webpage, then greater analysis of the webpage should be included.

Opportunities for further research

In this dissertation the concept of “dynamism” was developed with the aim of providing practitioners with an extended ‘bag of tools’ to operationalise sustainable development. However, this is only the beginning of applying “dynamism” in current practice. Further research should consider five areas: testing and applying “dynamism”, criteria for plan analysis, influence of new technologies in plan documents (i.e. plans webpage), and application of the SEA-backcasting framework.

Test ‘dynamism’ in different settings, i.e. strategic planning and local planning:
The exercise developed in this research uses available knowledge of comprehensive planning, especially local and district planning from international practice. In order to confirm Australia’s current state in regards to ‘dynamism’, further studies are required in terms of a bigger sample and in reference to local and strategic levels. This exercise should take into consideration that the level where the plan operates has an influence on the way concepts are operationalised in the document. Therefore further analysis on the criteria required to analyse local or strategic plans is needed. Examples of this need to reflect particular characteristics of the plans in the analysing criteria are the marketing features in strategic plans, as a way to compete against other cities nationally and globally; and possibly the link to budget at the local level.
**Potential to apply ‘dynamism’:** The findings show that there is missing from plans a need for ‘dynamism’ represented as SEA and several other concepts such as indicators, uncertainty, backcasting, learning, etc. However, currently ‘dynamism’ is an abstract concept that needs to be further analysed and developed into a practical application which can aid planning for sustainable development.

**Additional criteria:** Further research in terms of the criteria necessary for plan document analysis is needed in two areas: first in terms of the scope of the document, particularly how to fully analyse state strategic documents; and second, the inclusion of criteria that can provide information in relation to market and political forces in plan documents.

**The webpage:** Webpages are in an embryonic stage. Even though it was found that webpages serve as a way to communicate with the public and to provide information, this criterion (technique) was also described as a key development for future planning. Further analysis focusing on the link role of webpages to provide flexibility and adaptability to planning documents will aid in its role and value.

**SEA and backcasting framework:** Chapters four and six demonstrated the theoretical process and the mechanics behind this framework; however further research is needed to test its application in day-to-day planning matters. Studies in this line of work should be able to determine its potential for use in other sectors different from urban planning.
7.2 Conclusions

Firstly, the concept produced to explore the operationalisation of sustainable development in plan documents, “dynamism”, evolved from a position narrowly linked to the use and application of techniques for sustainable development in the plan and plan-making process, to a concept with the potential to challenge deeply embedded forces (i.e. political or economical) in planning practice.

Secondly, the exploration of three plan documents in Australia revealed that planning for sustainable development, particularly techniques supporting its operationalisation in the plan documents is not common. While using triple bottom line in growth scenarios is the normal case, findings show little use of other techniques for sustainable development. This indicates that the awareness of sustainable development reflected in the interviews and the document, does not translate necessarily into a wide use of techniques relevant to sustainable development and its operationalisation in the plan. However, the limited use of techniques or tools in planning is not particular to Australia. Counsell (1998) showed how in their analysis of structure plans in England and Wales, only the minority of plans presented indicators. Additionally, in New Zealand, Ericksen et al. (2004) found that councils were producing planning documents with monitoring sections to which ‘lacklustre’ scores were assigned.

A special case of translating sustainable development into the document is that of WASSS which developed a unique way based on governance and the need to set a system as a starting point for sustainability. In relation to the scope of the strategy, the differences between state and, city or city region documents are not large enough to
prevent the conclusion that there is a common lack of techniques for sustainable development in current Australian strategic plans.

Thirdly, strategic environmental assessment and backcasting were useful in generating a dynamic framework aiming at sustainable development. The results as regards the ‘technicality’ and ‘adaptability’ of plan documents point to their usefulness to generate analysis in relation to strategic policy levels, inter-temporal considerations of links and impacts between policies and generation of alternative futures knowledge, much needed in current planning for sustainable development. As a way to provide approaches for operationalising sustainable development in plan documents, further research on SEA, backcasting and other similar techniques dealing with futures information and systems theory is needed, i.e. the relation between complex adaptive systems and planning theory could be further expanded to plan documents. This could provide practitioners with a wider range of possibilities in the plan-making process that could bring to the forefront decision-making alternatives that were not available before.

Fourthly, future Australian planning documents could improve the operationalisation of sustainable development through the actual implementation of the SEA-backcasting framework. This could be done in two stages: first, by adapting SEA into plan making, which is already available in current practice particularly in the European Union, to embed long-term strategic considerations of policies into documents and to provide the political process of planning with a framework less susceptible to economic demands; and second, by using backcasting as a tool that can provide alternative visions in the planning exercise. The order of this implementation
is determined by the assumption that it is easier to follow current practice (SEA), and advance from that point to a more challenging goal (backcasting). Better outcomes in theory should come once both techniques are working together.

Fifthly, even though, the emphasis of this dissertation was on techniques for sustainable development planning, findings show these are influenced by the historical context. The full extend of the meaning of the results was achieved once they were located within a historical context (i.e. neo-liberalism). This provided an indication that structural and contextual factors are also central for plan-making. However, this reality check of the results served as indication of the applicability of the SEA-backcasting framework in current planning, which in turn provides veracity for this framework to undergo critical review in the planning field.

Overall, the exploration of “dynamism” in this research indicates two things. First, that although the operationalisation of sustainable development is in its early stages (not far away from rhetoric) in plan documents, it can be attempted with appropriate knowledge on techniques. Second, that in its path lie economic and political concerns which are currently driving planning processes. This hurdle needs to be overcome if sustainable development is our goal. The solution can lie in Owens and Cowell (2002, p. 29) confrontation of ethical dilemmas and judgements with liberal democracy, simply because sustainability requires a renegotiation of social and political priorities. Nevertheless, the role of planners in this renegotiation would not be relevant if current planning practices do not offer alternatives to those in line with current liberal trends. Exercises like ‘dynamism’ provides a starting point for these alternatives, which to be successful require the planner to look back to what planning history has left behind
and relearn alternative interpretations to techniques and approaches which can prompt an equilibrium between economy and environment and a shift from rhetoric to implementation.
Chapter 8 REFERENCES


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Appendix
APPENDIX 1. INTERVIEW GUIDE

QUESTIONNAIRE

I. The planner and the plan

a) What are the key features/aspects of the plan?

b) What parts are particularly outstanding and you are pleased with? Why?

c) Any parts you would like to improve- why those parts?

d) In hindsight, how could the plan have been changed to incorporate these improvements?

II. Sustainable development and the plan

e) How was sustainable development defined for this document?

f) How did you translate the concept of sustainable development into the different sections of the plan? (i.e. Triple bottom line used?)

g) How did you deal with the idea of balance between environmental, economic and social values?

h) In the process of making the plan document, when was the public included (before, during, after)? Any mechanism that ensures public participation is included in the plan?

i) Was the public participation interactive (i.e. interactive with a software or consultation with planners)? (Is it possible to observe a learning process?)

j) Was “learning” used intentionally as a technique for the plan making process? (For example planners learning from the use of scenario technique or public participation. Is it documented?)

III. The concept of the future and the plan

k) How was the vision in the plan produced? The technique? Which was the criterion for the selection of this technique? (i.e Quest Software, SWOT analysis, meetings)

l) What method (e.g. Forecasting, Normative forecasting/Backcasting, Scenarios, Delphi, Extrapolation, etc.) was utilised to produce information regarding the future (to be used as an input into the formation of policies)? Which was the criterion? Does it depend on the topic/section of the plan?

m) How was uncertainty about future information treated/considered in the plan? Any assumption or rule?

1. Treating the future with certainty: and then reacting to that certainty
2. **Treating the future as risky**: where alternative futures are known and expected to occur with estimated probabilities.

   The government can then react to those statistics or choose to alter them through proactive measures.

3. **Treating the future as quantitatively uncertain**: where alternative futures are known, but the probability of their occurrence is not known.

   The government can then select the most desired future and plan accordingly.

4. **Treating the future as qualitatively uncertain**: where alternative futures are not known.

   The government can then establish a process wherein they envision a future they deem most desirable and craft a plan to bring about desire future.

### IV. Time and the plan

n) Were future generations considered (intergenerational equity)? (i.e. Selection of the preferred plan took place with explicit consideration of the needs of future generations?)

o) Were the cumulative impacts of the implementation policies assessed?

p) How was the timeframe of the plan decided? (i.e. 30 years) *On what ground?*

q) How was the timeframe for the monitoring stage decided? (i.e. 5 years) *On what ground?*

### V. Structure of the plan

r) How was the structure of the plan determined? Was it following the rational planning model (goals and objectives, alternatives, evaluation of consequences, choice, implementation, monitoring & feedback, plan revision)? Why?

s) What is the main difference with the previous metropolitan (general) plans? (i.e. Living Suburbs? And in terms of techniques?)

t) Was the proposed strategy considered as a package? (Economic, environmental and social)

u) Was it compared against other ones? (i.e. maybe through scenarios?). How? Criteria?

v) How was the monitoring section in the plan developed?

w) Do you think monitoring indicators should be included in the plan document? Why?

x) Why future images of the vision, such as maps, were (not) used in the plan?

y) How would actual and future feedback information (email, letters, lobby) be considered in the plan? Any filters on the feedback?
VI. Implementation Theory

z) What is the main characteristic of the implementation section of the plan document?

aa) Is there an established procedure on how to amend the Plan?

VII. Webpage and the plan

bb) What do you think is the role of the webpage in regards to the plan document?

cc) Was the webpage thought to be part of the plan? How are they connected?

dd) Do you think they should be connected? Why?

ee) Who should administer the feedback incoming through the webpage?

ff) What should be the procedure for assessing this information then including/excluding it from the plan?
APPENDIX 2. INTERVIEWEE RESULTS

THE CANBERRA SPATIAL PLAN

THE PLANNER AND THE PLAN

The key features of the C.S.P are: first; one that “is comprehensively considering and analysing change forces, community views and values” (Interviewee E); second, “it does provide a very clear view of a physical future which the key elements are a more contained city” (Interviewee E); third “one of identifying goals, objectives and actions to implement the planning direction” (Interviewee F); and fourth, the consideration of this plan to be part of the Local Agenda 21 for Canberra (Interviewee E).

The parts that are particularly outstanding for one of the interviewees are, in terms of the process: “that we have influenced the whole of ACT government strategy in terms of community consultation and in terms of how to achieve a document with a thorough comprehensive approach…we have been successful to make it a community plan’ (Interviewee D).

In terms of the parts which the planners would like to improve there are a few, for example one issue was the idea of improving the plan by increasing the degree of community agreements in relation to the way the state border is going to be managed (Interviewee E); another idea was to offer more information to the community and stakeholder through, for example, the use three dimensional modelling at the developing phase (Interviewee D); the last idea is to increase the level of analysis in areas such as retailing, industry and offices (Interviewee F).

SUSTAINABLE DEVELOPMENT

In this section of the results the aim is to record the concept/notion of sustainable development used on the planning process and in the plan document. This will set a starting point, which permits a posterior comparison between the set concept and the emergent ideas of sustainable development in practice. Therefore this section explores some relevant elements of sustainable development in the strategy, such as: a) definition of sustainable development; b) operationalisation of S.D; c) balance between economy, society, environment; d) public participation; and e) learning

a) Definition of sustainable development

Sustainable development is not considered explicitly, but sustainability is. The plan mentions three characteristics of it: “the recognition of the interdependence of social, economic and environmental wellbeing; a focus on equity and fairness, and that we need to take account of the effect of our actions on others in an interdependent world; and recognition that meeting the needs of today must not be at the expense of future generations being able to meet their own needs” (CSP, 2004).

Some comments in support of the relevance of sustainable development were:
“It’s the core philosophy or concept nominated in this plan which ultimately joined the three plans, economic, social and spatial plan” (Interviewee E).

“It (CSP) delivers … the physical framework for clear economic and social strategies and that too is the evidence of a truly sustainable development plan” (Interviewee E).

The CSP was also considered to be the representation of the environment in the triple bottom line approach.

“Essentially the physical environment is how you use land and space, that’s what a spatial plan is about…but I can understand someone in the future arguing that we need an environmental management plan or a system to further delivery wider environmental objectives to help the continuum of the Canberra plan” (Interviewee E).

b) Operationalisation of S.D

In this case the triple bottom line (TBL), worked as a way of operationalizing SD. This tool was applied to the growth scenarios. There is no recollection in the plan document of TBL used to examine each of the goals mentioned in the document.

c) Balance between economy, society and environment

In regards to this balance an interviewee said:

“If you look at sustainability, not just environmental sustainability but social and economic sustainability there could have been more direct discussion about how the plan is achieving different goals, I guess. Admittedly they do have some discussion about housing and responding to needs of people for affordable housing and so on. But it's a very general discussion and if you're using the plan as the only source document you really haven't got too much information to go on” (Interviewee F).

d) Public Participation
Figure A1 from *Your Canberra Your Future* (one of the documents released on this planning process) expresses what the interviewees stated about the consultation process. "It was very successful because there was a structure and a logic and a method clearly articulated early which people understood. It was described as a five step process." (Interviewee E). In regards to the process another interviewee said:

“so, that was the strength of the plan but as I was saying earlier, maybe it was over – the community was over consulted to the extent that bureaucratic resources, I guess, are limited and if you're spending time doing consulting and talking to people there's less time available to actually do the analysis to support the final plan” (Interviewee F).
The approach to this consultation process also got a flavour of post-modern perspective:

“You know, we can plan a place to death but we want to go down a pathway which is wide enough and broad enough for us all to see that there's room on it for us. We're going down that track together, that it's wide enough to allow a lot of people and a lot of almost variation within the scope of that path and we'd allow a little bit more chaos in the planning to be a successful city” (Interviewee E).

Figure A2. Outline of the Spatial Plan

From Figure A2, it is possible to see the outline of the whole process with some detail into the consultation process, such as actors, techniques and expected time lines.
The robustness in the consultation process leads an interviewee to state that "it (the plan) will stand the test of time even if there was a change of government because of the strength and legitimacy of the process" (Interviewee E).

In terms of the amount of public participation done a planner recalled what was told to him: "There were many people in our organization who thought we were going down the wrong track by doing what's outlined, you know, that five stage process. That we were putting too much belief and too much faith in community and not enough in our own staff and we should be putting more resources into technical staff" (Interviewee E).

e) Learning as a technique (is it just public participation, what about scenarios?)

This element is related to public participation through the way the latter was used: "...it (learning was thought to be a main tool from the beginning), certainly was...we wanted them (people) to feel it was their plan and they were going to learn things out of it and learn some things which we did, some were going to be surprises to them and to us" (Interviewee E).

In terms of learning it is possible to see how from the meetings and within those meetings the use of scenarios was quite valuable in regards to the growth concepts.

When attempting to decide if learning happens as an explicit technique or as concept which is thought from the beginning this concept was considered more a consequence that you might think of when the process is done but not a concept that you are aiming for from the beginning. Learning in the planning process was explained by the consultation process and its meetings.

FUTURES

This section reports on the expected link between the tools (approaches, techniques, assumptions, considerations, in other words the starting milestones for futures analysis) used to deal with the future and the way the future is aimed at.

Vision

This specific plan does not have a vision but "If you see the vision for Canberra plan that is the vision of this document" (Interviewee D). This is due to the fact that the spatial plan is one of three elements that constitute the major plan. It "needed to be fully integrated with the whole of the government plan vision..." (Interviewee E).

Techniques

The use of different techniques could be described by the issues they are related to, for example sustainable development, public participation and futures techniques.

In terms of techniques for sustainable development a planner stated:
“It (the planning process) did do some scenario testing but I don't think that's really indicated in the final plan. So you're not quite sure why, I guess, the compact city is being adopted as the way to go. I think most planners would accept that is a more sustainable urban pattern but it would have been useful to have a bit more supporting evidence in the plan” (Interviewee F).

In regards of the public participation it is mentioned that the consultation process set the origin of the five growth concepts mentioned in the document, *The Draft Canberra Spatial Plan*. During the public participation specific tools were used such as workshops, seminars, surveys, webpage, email and a devoted telephone line (Interviewee D).

In relation to public participation and interactive tools an interviewee stated that “It (interactive process)'s not like a Quest but we had an email address so if you were interested to put any comments or anything after seeing our website...You could email us, you could go to the website and give us a feedback” (Interviewee D).

The techniques used were...“a marriage of that strong technical analysis being shaped by a very comprehensive understanding of community views and values which ultimately led” (Interviewee E).

When getting into a deeper level of technicality “I think scenario development based on forecasts was the main technique. The starting point, I guess, was with the population projections...If the population level is going to that level then the employment growth to support that sort of population the employment will need to increase by X and so those basic parameters of likely employment and likely growth in dwellings and likely growth in population, we used them to frame the difference scenarios for testing or evaluation” (Interviewee F).

Another interviewee stated:

“So it's a combination of computer softwares and the projection model, the GIS model. How we achieved this plan that, okay, here I have got a scenario what the population will be, here I've got a scenario that, okay, these are the lands that we can use in the future. So now how can I combine these people into those lands, so it is a use of various models" (Interviewee D).

The type of information also has changed over time:

“I think it's simply there was more analysis of the existing situation in relation to various land uses and in the '84 plan there were a lot of explicit alternative scenarios identified and those scenarios were evaluated in relation to goals but they also had (indistinct) assessment sitting behind it and a transport assessment sitting behind it which allows people to understand why the particular plan form was chosen over and above another plan form...but this one doesn't really have that analysis sitting behind it or explicitly in the plan anyway" (Interviewee F).

Uncertainty
In this case uncertainty was treated using future population expectations, for example: "whilst there's a band within which a low or a high level population forecast we're planning for above the high level forecast…” (Interviewee E). Similarly, another planner stated: “this issue about uncertainty, I guess, has been treated in the extent that they looked at different rates of growth and what it could mean for Canberra. If there is a lower growth then, well, the planning will be in place anyway.” (Interviewee F).

TIME

Intergenerational equity

In this case it was tackled by the use of a consultation process:

“Not only by directly engaging the young, the school children and their views. But by analysis and, you know, we've talked to the best social researchers...and understanding generation X and Y and their views and their values and the nature of work and the way it would be in the future and doing quite deliberate analysis of the Challenges and Changes document” (Interviewee E).

In regards to the specific use of techniques such as net present value (which is a financial tool, but could give us ideas on how to treat the future), the data does not show this kind of tool or similar being used in direct reference to this topic.

“I think that (environmental, social and financial value) was, you know, probably perceived as something that would have been desirable to be done but I don't think it was really done in the end...But in terms of analysis to identify the present value of the plan, that wasn't really attempted” (Interviewee F).

This tool is expected to be used at the implementation phase:

“we are using this technique for the implementation phase...because our treasury is very interested to see what is the net present value of the future that we are expecting that these sort of services needs to be provided, this sort of health facility, this sort of education facilities we'll be needing by the number of population that we are projecting” (Interviewee D).

Cumulative Impacts

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions1.

1 www.i395-rt9-study.com/08_glossary.html
This was seeing as a task which needed a lot more resources. “I think, if I was to be fair and honesty here there's massive work, huge, you know you can't jump over the paper. Some of it's, you know, like the academic exercise you're doing now, maybe we just ran short of people and resources and had to make some realistic and pragmatic decisions about – yes, we made an assessment. But none of it – individual cumulative impact against each of the goals, no, it wasn't done” (Interviewee E).

This topic was also seeing as a process which can be overcome by monitoring (more of a project approach).

“…If our indicators say that, yes, we are not achieving what we wanted to achieve with this sort of action, then we can easily modify that action. So that's the strength of this document, it's quite flexible” (Interviewee D).

Plan Time Frame

The rationale behind the plan time frame was:

“what we found is more or less every ten or 20 years the demographics have changed...Since we have talked about infrastructure, so we need to put some roads and infrastructure like water supports and sewerage and things like that, those things actually work in a longer period of time...So that gave us an idea that about 20, 25, 30 years time is quite reasonable time” (Interviewee D).

Another possible explanation was "I think the 30 year time frame was judged something that was sufficiently long to allow the evaluation of longer term scenarios" (Interviewee F).

Monitoring Time Frame

This time frame was directly influenced by:

"...the implementation was divided into three phases, one the short term implementation, medium term implementation and the long term implementation...after two years we will publish, like, a whole of spatial plan review, what have we achieved so far? And, again, after five years this whole plan will be reviewed, that's the time frame for the revision of this plan" (Interviewee D).

Along with this answer there is also a more pragmatic answer: “But I think to pragmatically review every five years is probably an appropriate time frame, to make sure that the plan is still basically achieving what it was hoping to achieve because it's really a management tool, I guess” (Interviewee F).

STRUCTURE OF THE PLAN

Structure
In this instance I was aiming at determining if the plan structure was determined following a rational planning model. The data shows two approaches to this query.

The first approach from the interviewees was:

“That's exactly the way we have determined, that's exactly what you have written here in the question and what you have just said” (that was in terms of the planning process)...(and in terms of the plan document) this actually follows the same thing. It has got like a background thing with the goals and objectives and things like that and how we'll implement, how we'll achieve that and then maybe how we'll monitor and feedback” (Interviewee D).

The second approach, although it recognizes a good overall structure, it mentioned some extra work needed:

“Speaking from a planning background I guess I would have liked to have seen the options identified, the options evaluated and then a preferred plan coming from that evaluation. Whereas the way this document is structured it's really saying this is the preferred plan and these are the goals and objectives and the actions to implement that preferred plan” (Interviewee F).

Some specific examples of this second approach are:

“The employment location in particular… I would have preferred to lead the reader through more supporting analysis for some of the positions”… “It would have been beneficial to have more information about, does the compact city result in reductions in greenhouse gas emissions or reduce vehicle kilometres travelled?” (Interviewee F).

The relationship between the structure and triple bottom line was also mentioned as something necessary for the plan: “a triple bottom line analysis before, it would have been useful to have that sort of analysis sitting behind the adoption of the preferred plan or even some basic outputs of some transport modelling in terms of basic parameters or other sort of indicators to say why this is the preferred plan” (Interviewee F).

The number of pages seems to be a factor influencing the structure of the document as well.

“If you see that we try to keep this plan a short document because we didn't want to produce a 300 page document...They (stakeholders) wanted several documents, like the old documents and the new documents but they wanted a clean document...So it has got straightforward three sections, like this is the plan, this is the policy, these are the actions, this is how we monitor, so that's it” (Interviewee D).

Difference with previous plans
This section explores the changes in methodology between previous plans and the one under analysis. The differences can be divided in three: objective, process, and context of the plan.

In regards to the first one, “the main difference is like we are promoting contained growth” (Interviewee D); in regards to the process:

“…this is not quite like any other plan partly because of the heavy emphasis on community leadership, engagement, participation, more open …You know, earlier plans probably would have had a more heavy bias towards technical orientation and leadership, that's not to say that it wasn't there” (Interviewee E);

in regards to this same point, three dimensional tools were also considered important:

“You know, we'd like to have 3D models and things, you know, a lot more public discussion and education through the TV around how the city might look…We looked at Oregon (Portland) and techniques of engagement and that was one of the models of this multi-step process which was up for review”;

and finally for the context of the plan, data shows:

“I guess, in some ways the document has to be a little bit more promotional about Canberra…I think that's a reflection that Canberra has to compete for economic growth whereas probably when the eighty four plan was done growth was almost a given”… “So that boom, bust cycle, I guess, is one of the characteristics of Canberra. So I guess the spatial plan in conjunction with the economic white paper is trying to look at ways to make Canberra a more attractive location and not just assuming growth will occur” (Interviewee F).

One of the interviewees also reflects on the past and present conditions for planning:

“the draft plan (nineteen eighty four plan) was prepared in isolation. The draft plan was prepared and then was released for public consultation and involvement. Whereas this plan, the draft plan can be perceived, I guess, as being the outcome of the consultation that was done and not just with community groups and business groups but also within the bureaucracy…But at least it has that advantage of bringing people along and I think that's probably an appropriate approach for the current environment in which planning is being undertaken” (Interviewee F)

Strategy as a Package

In this case the planner’s perception of this analogy was in relation to the writing of the document:

“It's drafted in the minds of people who are thinking in an integrated way across all of these areas. It's not as though someone was sent off in a room to do the one on transport and, you know...the integration is actually happening
collectively...it's happening in the minds of people who are allowing these streams and goals to intersect and form and shape each other” (Interviewee E).

Strategy Comparison

Some features of understanding the strategy as a package and comparing it was illustrated by one of the interviewees. “Well, I think it would have given people more of an understanding of why the preferred plan is the preferred plan. That's where I would have liked the scenarios to be probably in the final document and the evaluation of those scenarios to be more explicit” (Interviewee F).

Some other answers were indirectly dealing with this point, for example: “No. They (the six goals of the plan) refined each other as they were shaped at the time in draft plan” (Interviewee E); and “there was five growth concepts and scenarios that we have analysed (indistinct) the draft Canberra spatial plan and we have analysed them from the triple bottom line perspective...So the final one that you are seeing in this document is none of those five growth concepts, that those five growth concepts gave birth to a sixth growth concept and that's the pick and that's the solution that we have here as a strategy direction” (Interviewee D).

Monitoring

This element, which by its own name supposes a process, was not developed as a section of the final plan document.

Indicators

It was merged with the section on achieving the plan goals which contains indicators for further monitoring purposes. In regards to the inclusion of indicators in a plan document, the interviewees expressed the importance of this tool.

“So it is a reflection of your accountability which is really very important when you are developing a plan. Otherwise this will be another plan going into your bookshop and remain there...You are pretty sure that you can achieve these plans over this period of time through these sort of indicators” (Interviewee D);

“I think it's a useful framework but I guess like any framework the indicators will be reviewed and changed where appropriate to reflect more – and developed to reflect – to be a better benchmark of what is happening...Yes, I think probably a criticism in the past of planning is you produce a plan and it sits on the shelf...you also need the indicators to identify plan performance and how the plan is being implemented and whether it's being implemented and whether its meeting the set goals and objectives and those goals and objectives can be reviewed and changed” (Interviewee F);

When a planner was asked about letting indicators be formed after implementing the plan, he responded:
“You can do that (letting indicators be a result of implementing the plan)...but these give you more authenticity, like, as a reader you feel like – you feel more confident that these people are not giving me the actions and plans only, they are also giving you some tools to monitor...So this is a two way process, like, your stakeholder is part of this developing indicators. So that's why it's like a hint, like a hint that you provide for your community” (Interviewee D).

When asked if the plan document was adaptable and flexible an interviewee stated “I think it's a fairly general sort of document, a strategic document. It has goals, objectives, actions, you can quibble I guess with the goals and the objectives and the actions and the indicators but at least that's the framework which can be reviewed and monitored and changed” (Interviewee F).

As an element that will support adaptability, as it is shown in the previous figure, there is an ongoing process based on indicators and evaluation which would allow the plan to be adaptable over time. "...If our monitoring – if our indicators say that, yes, we are not achieving what we wanted to achieve with this sort of action, then we can easily modify that action. So that's the strength of this document, it's quite flexible" (Interviewee D).

Maps Inclusion

Maps were considered essential for this spatial plan: “I think these maps are essential and if we could provide three dimensional maps that would be excellent” (Interviewee D); according to another planner the text has to expand on the relevance of what is being shown: “So they're not an end in them themselves but they're useful, a useful adjunct to the written statement” (Interviewee F).

Implementation

The main characteristic of implementation was considered by an interviewee to be:

“that it's strongly connected, that it's layered for confidence, it focuses on short, medium and long term. That it doesn't describe it in such detail that it will discredit the plan if certain things don't happen precisely on that time because it needs to be rather more timeless this document, it can still be picked up and used and be credible as a reference document for many years to come" (Interviewee E).

This was also complemented by a planner describing a further characterization of the implementation process into two categories: statutory projects and operational projects. “…if you go through the short term, medium term, long term, you will see that it's a mix... but what we are doing now is separating them on the statutory projects and then operational projects...” (Interviewee D).

When the planners were asked about the similarity of two chapters (fourth and fifth) in terms of both showing implementation, the responses were: “These are like the strategy directions and these are like at a project level” (Interviewee D); in this regard another planner stated: “one implementation chapter would have been probably better
at identifying – some of the specific actions are really key implementation actions of the plan...So it would have been better to have a slightly different structure to the plan” (Interviewee F).

Feedback Information

Although some kind of control over the feedback was accepted, there was no further information: “Yes. There is (filters), as I have mentioned, that we have actually taking some of the feedback and adding some of the indicators and implementation procedures and things like that” (Interviewee D).

Amending Procedure

No explicit results about this topic, although it’s been considered as a future action:

“We do have a procedure because that's a process that the government would like to encourage that this is not the end. This plan is just the beginning of a spatial plan process. We are trying to get a legislative structure, legislative value of this document so that it has got some sort of statutory value so that it gives the government more credibility to implement this document and once that's established that will refer to the system, that how can we – like, an amendment, like statutory amendments, like, how can we amend this process if we would like to amend something” (Interviewee D).

WEBPAGE

Role

According to the interviewees the webpage has a role as: “it's another way of promoting and selling and talking to your document...it has got information provision responsibility and obviously feedback” (Interviewee D); “I guess, it's a very quick means of communication for people to understand and get access to the plan and its actions and what's happening with the plan” (Interviewee F).

It was also identified as an evaluation tool: “I think it's a very useful technique for evaluating the plan”... “So there should be the opportunity for people to respond to what is being identified as being implemented and whatever. So it should be a very good interactive tool” (Interviewee F).

Articulation to the strategy

The responses varied in relation to the articulation of the webpage to the plan, according to which phrase (“planning process” or “plan document”) the planner referred to.

“We do have a procedure because that's a process that the government would like to encourage that this is not the end. This plan is just the beginning of a spatial plan process. We are trying to get a legislative structure, legislative value of this document so that it has got some sort of statutory value so that it gives the government more credibility to implement this document and once that's established that will refer to the system, that how can we – like, an amendment, like statutory amendments, like, how can we amend this process if we would like to amend something” (Interviewee D);
“it probably wasn't accentuated as much because we knew we were going to need to use a lot of personal relationships, interactions and generate some confidence in people through our one on one contact and public meetings and forums and workshops. We used a lot of different techniques, I mean, the web was certainly part of it. It's potentially more powerful I think for the long term now and because it's use is going to continue to accelerate” (Interviewee E).

When an interviewee was asked if the webpage and the plan document should be connected, the answer was: "it has to be. It has to say the same story, the same language. You can't have two different versions of things" (Interviewee D).

Vision of the webpage

One of the interviewees stated:

“It will become a foundation for the plan rather than the book shelf…it doesn't have to be that way (dry and dusty) now because we get everything electronically and we can use it, we can play with it, we can interact with it, we can question it” (Interviewee E).

Webpage feedback administrator

The idea here is to find out who, in terms of academic discipline, should administer the feedback (i.e. planner, communicator, IT). A planner said:

“There are two ways from the web…If you are putting your feedback through the web, it goes to the web master and if it's spatial plan related they actually forward that to us. But if you send your comments or feedback through our email address…that comes directly to us, we administer that and we respond to you and we take action to that” (Interviewee D).

Assessment procedure of the feedback

Again this topic relates on who and how the feedback is (not) included in the plan document:

“It (the feedback) will come to us, we will technically we might reject it and we will get back to you that, sorry, we can't – this does not go under the principle. But if we think that it should go onto the spatial plan we will take it to the ACTPLA committee, that we have a policy committee with the senior directors and managers and then they will decided that, okay, yes, we can accommodate that in the spatial plan. It is like an amendment” (Interviewee D).
### MELBOURNE 2030. PLANNING FOR SUSTAINABLE GROWTH

#### THE PLANNER AND THE PLAN

According to the planners the following are the key features of the Melbourne 2030:

<table>
<thead>
<tr>
<th>Key Features</th>
<th>Outstanding parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>• It has a long term horizon (Interviewee G, H)</td>
<td>• A whole of a government approach best way to ensure successful implementation (Interviewee G, I)</td>
</tr>
<tr>
<td>• It was developed and released as a whole of government document (Interviewee G)</td>
<td>• The degree of stakeholder support (Interviewee G, I)</td>
</tr>
<tr>
<td>• It is framed in terms of a plan for the sustainable development of Melbourne (Interviewee H)</td>
<td>• Giving certainty for determining the areas for investing and areas for protection (Interviewee G)</td>
</tr>
<tr>
<td>• It builds on previous plans, the 1980 strategy and the 1987 strategy (Interviewee H)</td>
<td>• The linking of strategic public transport network and activity centre network, because “it provides a long term strategic investment framework for public transport in particular” (Interviewee G)</td>
</tr>
<tr>
<td>• It exalts the virtues of a policy of urban consolidation (Interviewee H)</td>
<td>• “The taking of a holistic view of the city and seeing the city not as either a physical thing or an economic thing, but seeing it as a multi-dimensional place…” (Interviewee I)</td>
</tr>
<tr>
<td>• The integrated nature of the plan, addressing economic, social and environmental elements and attempted to integrate activities across those actions (Interviewee I)</td>
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<tr>
<td>• The inclusion of non-urban areas in the plan (Interviewee I)</td>
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<tr>
<td>• The urban growth boundary and the relationship between Melbourne and regional centres (Interviewee I, J)</td>
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<tr>
<td>• It was developed with an extensive consultation process</td>
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SUSTAINABLE DEVELOPMENT

In this section of the results the aim is to record the concept/notion of sustainable development used on the planning process and in the plan document. This will set a starting point, which permits a posterior comparison between the set concept and the emergent ideas of sustainable development in practice. Therefore this section explores some relevant elements of sustainable development in the strategy, such as: a) definition of sustainable development; b) operationalisation of S.D; c) balance between economy, society, environment; d) public participation; and e) learning

f) Definition of sustainable development

The glossary of the document has the following definition: “development which meets the needs of the present without compromising the ability of future generations to meet their own needs”.

The planners’ comments on this issue were:

“We used the National Strategy for Ecologically Sustainable Development in the NSESD framework and that's what is reflected again on that page 29” (Interviewee G);

“I don't think we ever tried to define closely sustainability, we more said – if we're talking about sustainability we're talking about an holistic approach to urban development that recognises these social needs, the environmental needs, the economic needs without saying we expect to be able to run a series of tests that says a tick to every one of the box that has some criteria of sustainability” (Interviewee I);

“I don't think the document really delivers on sustainability. In fact I've yet to see any plan of this nature that I say does deliver sustainability. I think it's a concept that's still being kind of wrestled with and I think also it's – I would like to see this document as being the first stepping stone towards, you know, achieving a much more sustainability of strategies” (Interviewee J); and

“So my view is that it was more important to understand the consequences of our actions or potential actions or trends against each of those sustainability areas and then look at ways we could either enhance, preferably enhance where there's a social capital to the community, whether it's air quality or protection of biodiversity or you could enhance and minimise the negative impacts of it” (Interviewee I).

g) Operationalisation of S.D

The idea with this element is to understand how the S.D concept was translated to the different sections of the document. The comments are divided into five groups: the plan making process, further implementation, plan structure and triple bottom line, checklist and finally, some contrasting data in regards to this element.

Plan making process
“We actually used sustainability objectives and so on when we were considering different options for development. Probably at that main structural level that I was talking about. So, you know, we looked at a range of different urban growth options, for example. Now, we've only some of the options that we looked at in the actual document but we ran some tests of those different options against sort of social, economic, environmental kind of criteria” (Interviewee G)

Further implementation

“So certainly that was used when we were considering which policy options we wanted to go down but we were also conscious of the fact that we didn't want the sustainability approach to stop just in, I guess, the development of those big structural elements which is why throughout the document you'll find various sustainability criteria” (Interviewee G)

Plan Structure and triple bottom line

“I guess, in terms of the plan making process, the last thing that happened was actually writing the document and trying to put it in a form that actually could be digested to the public. So the directions per se in name certainly weren't tested in that sense. The substance of them certainly were and that's where you see that example of the urban growth options that are documented there” (Interviewee G)

Checklist approach

“We did triple bottom line in (indistinct) each of those areas we tried to either put quantify-describe the impacts...my recollection is as much a checking process – it certainly wasn't a process where we in some way quantified it and then gave ratings to different elements and said, well, some is – this package is X and some package was Y. It was more of a checklist to say, well, how have we considered the impact of this policy on (indistinct)” (Interviewee I)

Contrasting answers

“I understand the triple bottom line approach. I'm just not sure it's applicable in something of this scale and complexity. It may be applicable at a company's books when their books are being audited. It may be even possible and feasible and even desirable to use triple bottom line for that. But when you're talking about a Metropolitan area, I mean any attempt to do a proper triple line analysis is going to be so subjective that, I mean, you know, I'm not sure it's worthwhile” (Interviewee J);

“So I think in a sense sustainability means – this is about an irony I suppose but sustainability I think means actually curtailing people's choices...I mean, from the environmental point of view I think it does. The social angle of sustainability, obviously you should be giving people more choices I suppose. But if it's the environmental that's important then people – that choice has to
be limited. We can't go with what we're doing, you know, so people aren't going to give up these things willingly, I don't believe. So you're going to have to introduce economic instruments to force people to change behaviour or you have to limit their choices” (Interviewee J); and

“I think you've got to remember the kind of context in which this thing is being produced. I mean, this is a government document. In order to get approval from the government it also has to be proved or at least not disapproved of by other government departments who are not necessarily as focused on sustainability outcomes as this department is. This is to do with the structure of government. The government is organized along sector lines and silos basically but you've got economic departments, you've got social departments and you've got land use departments like this. So the whole structure of government is not designed in a way to promote sustainability. So that's problem number one with sustainability…

Problem number two is, and this in my experience...are these strategies solely about land use or are they more comprehensive development strategies for Melbourne? So there's always this conflict and it's a bureaucratic conflict as well as a kind of almost academic kind of conflict...between the disciplines about the role to which sustainable land use strategy can actually achieve very much in terms of economic or social development" "I think that (lack of integration) is inherent in the structure of government...the strategy has to work within this context of a government structure which is essentially sectoral” (Interviewee J).

h) Public Participation

The whole consultation process was explained as follows:

“In terms of the process it was a three stage process specifically. We wanted to be able to go to the public with a blank slate and ask them what they wanted about Melbourne…The second phase was then taking back to people what they told us in the first phase and checking that with them and saying, okay, this is what you said, have we got that right? And now here are some options based on what you said...the third phase was putting out the document and draft implementation plans and getting feedback on the draft implementation plans. Now, I guess, that was the process for the general public. At the same time we had a parallel process running with mayors and CEOs, we had round table workshops with various interest group type areas” (Interviewee G)

The last period of this process was further explained as:

“We also had a review panel of experts that we brought in right at the end of the process before we finalised the document...And then we had a group to overview the whole document and to say, well, okay, given our objective of having an holistic approach, that we wanted sustainability principles, how does the document as a whole stand up?” (Interviewee I)
The approach to the whole consultation process illustrated in Figure A3, was explained by a planner as:

“I guess what we tried to do was load up the front end of the process so that what was actually developed and put out in the end, as far as possible, took on board what people wanted. So that's where we spent the effort and the time, rather than once you've got sort of a final document, perhaps spending it at that stage. That obviously was ultimately government's decision to do that and then focus on the draft implementation plans as the key focus or consultation of that final phase” (Interviewee G)

The interaction in the process occurred mostly in direct contact with the people and by email:

“The team members were either facilitators or sitting on tables to answer questions. So they had face to face interaction with community groups and that was done at each stage of the consultation...but in terms of the interactive process of the model of having a screen where people can try ideas and that – there certainly was an ongoing email address and letters. So there was constant information coming in but it tended to be more at stages” (Interviewee I)
i) Learning as a technique (is it just public participation, what about scenarios?)

This topic was understood by the planners in two ways: the first one referring to the process of learning through the meetings in the consultation process and the second one referring to learning from the plan document:

Meetings

“It was more dynamic and it was more open-ended than that, so it's a very natural process of listening, not having preconceived ideas around the issues or the product that came out"..."Yes, it was used for plan making. It was also used to improve or broaden the thinking of the planners and another thing we did as a team was a mixture of – a whole range of backgrounds"..."So what that did was it increased, I think, probably successfully the level of understanding of the different professionals of different ways to look at the same problem” (Interviewee I);

“It was a very salutary experience for planners, I think because your heads might be full of theory and so on and we're used to dealing with other public servants or developers (indistinct) in front of the public you might get some quite different perspectives, yes, that's great”... “It (learning as part of the plan from the beginning) was never explicitly stated” (Interviewee J); and

“I think, a learning planning strategy, one that evolves, is one that's a little bit more open than that one” (Interviewee H);

Plan document

“I think if the objective is to engage people in a learning process I think you have to be honest to that and no assume that the final document is the be and the end all. You have to accept that the whole process is then part of that learning. It's important for people to see the transition, you know, from a blank slate through to options, through to a final plan rather than trying to encapsulate it in the one thing” (Interviewee G)

FUTURES

This section reports on the expected link between the tools (approaches, techniques, assumptions, considerations, in other words the starting milestones for futures analysis) used to deal with the future and the way the future is aimed at.

Vision

This element has two features, a consultation feature and a economic feature. The former is expressed as:

“It was that combination of our own thinking as a team, what the community said through the consultation, was a big part of it, what other cities, what other
people said, what felt comfortable, testing it out on people internally...so that sort of approach” (Interviewee I); and

“The vision statement in the plan…was informed by the two consultation processes. So by asking people how they wanted Melbourne to be in the future” (Interviewee G)

And the latter is expressed as follows:

“Every single word in that actual vision statement was laboured over…in an era of globalisation and there was a lot of pressure when we were doing the plan to, you know, you've got to make Melbourne globally competitive and, yes, that was important. But do you do that for and in and of it self? Or do you make the city liveable for our current residents and businesses and so on and in the process make it a liveable city to enable us to compete in the global economy. We were always very conscious of the need to do both. It wasn't just about competing in the global economy for that purpose alone” (Interviewee G)

“The desire was to have a Melbourne which was competitive, economically competitive which was managed in an environmentally responsible way and which, I suppose, fostered...greater social equity rather than inequities” (Interviewee H)

Techniques

At first glance the main techniques used in the planning process were:

- Forecasting projections for demographics (Interviewee G, H, I, J) and transport (Interviewee G, I)
- Trend extrapolation (Interviewee H)
- Data regarding birth rates, death rates, fertility rates, immigration and its assumptions (expected levels into the future) (Interviewee H, J)
- Reality check on land availability (Interviewee J)
- Scenarios (Interview G, I)

In regards to the techniques used a planner expressed:

“I think that's (indistinct) because we've traditionally done demographic forecasting and so that has always been the basis of all the strategies, start with the population, I suppose in a sense that's fair enough because everything else comes from that. Other than that there was no – I don't think there was any formal decision to select a technique” (Interviewee J)

Some other techniques were mentioned as well:

“In a sense I suppose that (backcasting) was partially done here because basically we had a population forecast and the distribution of that population and in order to accommodate that population...And the decision was, well, we
can accommodate it by increasing densities, not by allowing outward sprawl. So I suppose in a sense that was backcasting” (Interviewee J)

In relationship to interactive planning techniques, such as QUEST² a planner stated that:

“One of the things I get wary about is the little black box...the numbers of assumptions you've got to build in to any one, you know, output is just absolutely phenomenal and the process you go through to develop those assumptions is really, really critical. So I'm wary of a tool that produces very simplistic outputs unless you can be explicit about the process that was used and the decisions” (Interviewee G)

In relation to the selection of techniques behind the planning process a planner said that:

“...can I say that you'll probably be shocked to find how un-rigorous a lot of the plan preparation is about the techniques being used are not derived from manuals or from established modelling techniques. A lot of the methods used are developed very much on the run and (indistinct) from a variety of sources” (Interviewee H)

Uncertainty

This element was interpreted and overcome in different ways, such as: size of the city, adaptability, not locking the future, and monitoring.

a) Size of the city

“I doubt if we're going to have a much smaller Melbourne...but we could have a much bigger one” (Interviewee H)

b) Adaptability

“We know now that it is extremely difficult to predict the future and that we need to plan for a number of different possible futures and that the city that can adapt to the greatest range of possible futures is going to be the most successful and liveable and so on. So that's why adaptability is one of the key principles that we worked into the strategy” (Interviewee G)

c) Not locking the future

“So we did is we went back and we looked at what actions we could start taking now that would get us maybe 50, 60 per cent of the way to that final target and we said, we're not too worried about the other 40 per cent because over the next decade things will be learnt that will help get us there”..."take policies and actions now that don't compromise your choices in the future if

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²
the future changes, that you haven't sort of committed all you resources into one assumption about one way forward" (Interviewee I)

d) Monitoring

“the other example of the way we dealt with uncertainty was building in monitoring – taking an urban management approach basically to city development rather than like a command and control approach...You know, we've got a particular aspiration, there's the trend and we actually want to track what is happening so that if it's not turning out like the plan aspires we can make adjustments to give the best chance of heading towards where the plan aspires” (Interviewee G); and

“...indicators and by reviewing the strategy on a regular basis I suppose” (Interviewee J)

In terms of how important was the inclusion of this topic in the plan document, a planner answered:

“I don't really see the value in that because – not when it comes down to the actual plan document. You might have considered the uncertain future and alternative futures in some sort of issues type paper or discussion document. When it (indistinct) the plan I think it has got to say – not be 100 per cent certain but it has to be structured in such a way as to quickly indicate what is going to be done. So it's not a comprehensive approach, you are not trying to do everything” (Interviewee J)

An example of the relevance of uncertainty and relying on forecasting figures was described by a planner using water as an example:

“I suppose if you look at something like water consumption there are forecasts of water consumption. What we're dependent on doing is reducing demand for water, significantly...So we've got to get very, very smart with how we use water in Melbourne and I think there's a real risk we won't get smart and there just won't be enough water to go around. The problem with that is that it's going to amplify the system, if you say, well, we actually made a mistake, we do need to amplify the storage. That's not something you just do like that. You're talking about a 20/25 year project from the time you start working on what to do, to the time you actually have a dam that's full of water” (Interviewee H)

TIME

Intergenerational equity

The idea with this element is to determine how explicit is the consideration of future generations through the principle of intergenerational equity. Planners responded as follows:
“...the whole plan is about the future and necessarily because we had at least a 30 year horizon was looking at the sort of future we wanted when there are going to be future generations in place so, yes, it did. The specific areas where we I guess had a big impact were some of the demographic analysis where...in 30 years time we're going to look at a very different population profile to now, many more single person households and significantly greater aged population...very much looking at what sort of city will there be for future generations if we don't start tackling some of the trends now. The Challenge Melbourne document which we put out to try and capture some of those possible futures” (Interviewee G);

“I guess for us, in terms of the explicit way it was built in it's one of the core objectives of the national strategy for ecologically sustainable development so that's the way it's documented in the plan. But I think throughout various of the policy statements, and you'd need to analyse this, but you'll see talk about future generations” (Interviewee G);

“I think it was more paying lip service to the notion of intergenerational equity rather than any rigorous analysis of intergenerational change...I'd have to say it wasn't rigorously done at all, it was more done in a sort of informal and – in an informal way...It is implicit, yes, it is implicit and the absence of analytical techniques, that can actually help you determine intergenerational impacts” (Interviewee H);

“Yes, future generations was a big issue. It really drove a number of the decisions about protection of the future and options...we weren't just planning for today's issues but we were sort of saying, well, we need to make decisions today which may cost us a bit more today but in the longer run we will provide benefits to the community” (Interviewee I);

“This is what the planners are on about. I mean, that's – you know, they're thinking about the future. So there was no specific process or anything, formula but, yes, it's there” (Interviewee J); and

“Risk assessment – risk was one element, again, there wasn't a formal risk assessment done but it was one of the elements we considered...” (Interviewee I)

Cumulative Impacts

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions\(^3\).

The answers in relation to this element were:

\(^3\) [www.i395-rt9-study.com/08_glossary.html](http://www.i395-rt9-study.com/08_glossary.html)
“No, we don't have a particular dollar figure or anything like that. But we didn't go about a technique that put everything into a black box and generated one dollar figure” (Interviewee G);

“...originally it was 20 years, interestingly. Through feedback from the reference group... particularly from the local government voices on that group, the time frame was extended to 30 years. Primarily because in that last 10 years of that 30 year horizon... some of the benefit we're getting from previous planning decisions begins to wear out and some new decisions are likely to be needed” (Interviewee G);

“A generation, just a generation” (Interviewee H);

“...the question is, can you realistically plan for 30 years, I mean, you can't let... But I think in a sort of a practical urban development, I'd say probably 15 is about – that would be the maximum you could feasibly be reasonably certain of the outcomes beyond 15 years it becomes very difficult” (Interviewee J)

Plan Time Frame

The rationale behind the plan time frame was:

“...well, it originally started off as a 20 year time frame because we thought that was far enough out to get people thinking about the future but not so far out that they say, it's too far away to worry about, I won't be here and why be concerned about it. But we got very strong feedback, particularly from local government saying that 20 years was too short and we should take at least a 30 year” (Interviewee I);

“I don't actually know...I just thought because, like, 2020 has been done to death, so 2030 is the next sort of threshold” (Interviewee J); and

Monitoring Time Frame

The reasons behind this time frame were:
“We needed a time frame that gave us a chance to actually get some things done to evaluate in the first instance. But not be so far out that you don’t allow for that feed back loop to be able to then influence where the things are trajectoring. So five years was seen as a reasonable balance between those” (Interviewee G);

“Probably linked in as much as anything else with things like census data. Census does give you a snapshot of Melbourne” (Interviewee H); and

“When one talks about a document, I mean, I have questions about who actually reads that document? Who does it serve? Are there people who go comprehensively through that document and understand it? If there are, well, I’d like to know who they are... I think the important thing is that there’s a political and organizational commitment to review every five years” (Interviewee H)

STRUCTURE OF THE PLAN

Structure

In this instance I was aiming at determining if the plan structure was developed following a rational planning model. The data is divided in three groups according to the activities done at the different stages: a) before the document, b) best way to communicate with the document and c) the role of the document

a) Before the document

“we saw the development of the strategy as a process that wasn't just about this one document, that's why we didn't see a need to, I guess, document absolutely everything in this document and that's why we see it as being supported by the implementation plan, being backed up by the documentation with community consultation and the technical reports and so on” (Interviewee G); and

“the structure – there was a lot more work done behind the final planning than what is in there and issues like (indistinct), objectives, scenarios, testing was done and recorded in various ways on the way through. Because there was so much in the plan, it very much focuses on the final product” (Interviewee I)

b) Best way to communicate with the document

“I'd say generally yes, it did follow that sort of model. In terms of the sequence of steps we went through. In terms of how the results of each sequence step got translated into this document that was more a case of working through how the information could best be communicated to the audience as well as the best way it could be documented so that this could be a living, breathing document, to be used in decision making. We wanted it to be written and structured in a way that it didn't just sit on the shelf basically” (Interviewee G);
“As I said the facilitator was quite strong on this, that you had a vision and some principles you were going to apply and then your strategic directions or main objectives and then policy and actions, that was the model for expressing the plan"..."we can say that the answer to that question is yes it was following a rational planning model. Not necessarily all the thing...it has got a vision, it has got goals, you know, and it has got directions. It hasn't got necessarily evaluation of consequences...It has got implementation, monitoring, feedback, plan revision. So it has got a lot of these things” (Interviewee J); and

“It was decided that actually structuring the main document in that way (themes such as: activity centres, housing and integrated transport within others), didn't do justice to the integrated nature of what was trying to be achieved for Melbourne. You know, activity centres in name whoopee do. A more compact city, better management of metropolitan growth and so on actually tells a story. And that's why you have seen all through the document cross references to various different directions because it's just so integrated, it made it very difficult to actually document” (Interviewee G)

On Figure A4 the Plan Document Process, shows the different steps involve in making a plan document, according to a graphical interpretation of an answer from an interviewee.

c) Role of the document

Closely related to the best way to communicate the plan was the issue related to the aim of the document or the role of the document or the purpose of it. Planners expressed the following ideas:

“This should be talking about – this is what we're going to do, here are the issues, here is what we're actually going to do, not to go over old ground and be too descriptive” (Interviewee J);

“The feeling was you really ought to focus on what this thing delivers” (Interviewee I); and

“My view is that if you tried to make the final plan everything, it dilutes its primary purpose and for me the primary purpose, as important as learning in all of that is, I think there are very few people, general public especially, who sit down and read, you know, the plan go to whoa. The primary users of this document are decision maker and people involved in the decision making process. So for this plan it was written for that primary audience” (Interviewee G)
Difference with previous plans

This section explores the changes in methodology between previous plans and the one under analysis. This data has been divided into three categories: connection to previous plans, key differences and techniques.

a) Connection to other/previous plans

“...there are some really striking similarities but memories seem to be very short. But 10 or 20 years nobody remembers any more. So I think most people just think this is a new document, sustainability, this is great, you know, how fantastic. You know, there's no connection with the past” (Interviewee J);

“...it (Living Suburbs) didn't actually say it was going to do anything so you couldn't use it for anything” (Interviewee J); and

“...it's actually pretty similar in its structure to plans you see being prepared in many cities in the world these days and certainly somewhere like Australia. That plan is not hugely different to the one prepared in 1987 or 1980 for Melbourne. The pictures, there are more pictures, there's more of an emphasis I believe on sort of boosterism. One has to remember in part it's a marketing document, it's a document to convince like the development industry in Melbourne or development industry in Australia that there is a strategic vision for Melbourne and that if you come to invest in Melbourne it is in black and white or in colour in this case, it is clear what the government is after and what developments are permissible and what are not permissible. So there is – even the document itself there is an element of competition between, say,
Melbourne and Sydney and Perth and Adelaide and Brisbane and other cities...and...overseas” (Interviewee H)

"Another main aspect of the plan which again I believe is a continuation of previous plans is the emphasis upon a metropolitan structure for Melbourne, an urban structure where here are defined centres...I'd have to say about the metropolitan plan making process that one has to remember this plan was prepared when we were part of the department of infrastructure. The infrastructure department was essentially transport and planning and they are much in that order...I'd have to say that the planning process, the preparation of the metropolitan plan was to a considerable extent built around that transport vision” (Interviewee H)

b) Key differences

“The degree of consultation that went into this one, the widespread consultation. The fact that it has got a serious implementation strategy attached to it” (Interviewee G); and

“I think the community consultation was quite innovative… I don't think we came up with a new technique or particular activity. I think it was the way all the elements were put together...” (Interviewee I)

c) Techniques

“The big change in techniques… has been two-fold. One is, it used to be all about numbers, just generating numbers but now there's a lot more emphasis put on the analysis of change and understanding the drivers of change...The other big change we've made is just sophistication of techniques. We now use much better modelling processes to project population, particularly household formation…”

Strategy as a Package

In this case the planner’s perception of this analogy varied across the whole range, from fully integrated to not done, or too complex.

“...it was initiated, developed, finalised and implementation is proceeding on the basis of it being an integrated land use transport strategy. The depth of that interaction and integration is what made it so difficult to write it because it was like asking us to pull apart something that was just so integrated that it made it very difficult and that's why you'll see all the cross references throughout the document to the other policies and so on because they just don't operate in isolation” (Interviewee G);

“It was a combination; we looked at consistency between policies and synergies between policies and part of the problem we had was how we structured those sections because of the synergies” (Interviewee I);
“No, we didn't look at the impact of all these changes we could see happening in the demographics and the structure of employment, in the structure of economic activity, changes in, say, social relationships and local cultures. What did this all mean for Melbourne and its efficient equitable operation, no, we didn't. And that should involve, you know, that should involve a broader community of people not just the people here and that should involve your experts from particular sectors” (Interviewee H); and

“You're never going to achieve that, it's not possible to integrate things to that level"..."there were no actual obvious conflicts or contradictions but I mean what you're talking about, there's so many permutations"..."I don't think it's feasible"..."It was considered on a sort of judgment basis. I mean, the obvious contradictions would have been removed, well, obviously this was – this bit would conflict with that bit, you know, some resolution done to reduce that. But the whole thing, we're trying to organise a whole metropolitan area here, the whole thing is so complex”” (Interviewee J)

Strategy Comparison

This idea was not considered in the way presented by the interviewer or not done at all.

“No, (Options were not prepared as a whole Plan B). We didn't have a parallel plan being developed…it's not like this plan is one of four comprehensive scenarios or responses to scenarios that was developed. No, we didn't go through that sort of methodology or process, no” (Interviewee G); and

“There were in the physical sense. We looked at different physical urban forms and compact cities and disperse cities and multinodal cities and regional cities, we did a bit of work on that...But there wasn't sort of to say, okay, we have this activity centre policy along with this housing policy and this policy on transport and we have a different combination of those polices, here's the city. We decided not to go down that path, just the way we decided to do it” (Interviewee I)

Monitoring

This element, which by its own name supposes a process, was included within one of the Directions of the plan.

“we needed to have an ongoing process so the document is a living document, without being so flexible that it keeps getting changed...So it was put there to flag that the process was important and ought to be ongoing rather than trying to spell it all out” (Interviewee I)

“So Keeping Melbourne 2030 Up to Date, policy 9.3, for example, builds in a lot of those processes for ongoing monitoring like the annual report, the five yearly review and so on which, I guess, emphasises the importance of it...Figure 46, captures the way that we see the process working as an ongoing strategising process...” (Interviewee G)
Indicators

This could be part of the Monitoring element (above) but due to the amount of data gathered, it is treated separately. The necessity of indicators in plan documents has a wide range of answers.

“Yes, I think you could definitely do that. We haven't and, look, at the end of the day it was probably just a time issue...in hindsight has actually given us a chance to let the dust settle, understand what are the most important aspects of it to people like the reference group and the community and so on...For me I think it's important to be clear what – it's good to explain what you're going to monitor in this document but this isn't the place for the detail, in my view because then it just gets lost...So really in this document it's really just saying what's important to monitor and commit to setting up that process and that's what is now being done with the urban development program” (Interviewee G)

“Probably. I think there's a bit of reticence about indicators unless you can be sure that – well, one, that you can measure them and often that's very difficult to measure. Secondly, you can actually measure the cause effect that changes the indicators” (Interviewee I)

“I think indicators are an essential part of it (plan making and plan development process)” (Interviewee H)

“On balance it would probably have been better if they had been but I wouldn't say it's essential. You could have the indicators separately” (Interviewee J)

Maps Inclusion

Maps were considered useful to represent concepts and give certainty to readers.

“...to give a clear spatial representation of what was meant...you need a degree of certainty about the big structural decisions that a city is involved in. That's certainly a big part of why we map stuff in this” (Interviewee G)

“I think it's important not to have too many plans (maps/figures) in some way because you don't want the plan document to be seen as a statutory type planning document that's just maps. So we went for very schematic and tried to convey concepts of the network city...So we tried to use plans, either to present a concept or to demonstrate a policy in a simple way, like the urban growth boundary” (Interviewee I)

Implementation

The answers into what is the main characteristic of the implementation section show the following results:
“The implementation section at the back of the document then we put—because we wanted to really emphasise that this isn’t just about putting this document on the shelf” (Interviewee G);

“Well, there are companion documents…” (Interviewee H); and

“Well, I think it’s fairly thin at this point” (Interviewee I)

A planner compared this element of the planning process with the actual plan document.

“...if you like you could say the plan is worth 40 per cent, if you like, and the implementation is worth 60 per cent” (Interviewee J)

Feedback Information

In regards on how can the feedback be considered in the plan, and on the presence of filters for it, the data shows:

“All correspondence we got, whether it was by email, letters and so on, was documented and responded to and the submissions analysis report that was publicly released documents the response on an issues basis. So the submissions analysis report is the key output from the final phase of consultation on implementation and you can see in that documentation where it was used to change the implementation plans or whatever” (Interviewee G);

“A report was produced for government… which was a public report. It said, well, here's a summary of all the issues that were raised and here's the government's response to each of those” (Interviewee I);

“They (feedback comments) were each considered on its merits...And so the plan was changed in some areas, it wasn't changed in others, depending on what the comments were” (Interviewee I); and

“The team would make recommendations and if they were consistent with the whole plan and improved it then they would probably just be incorporated and we'd advise the ministers and that would happen. If they were major issues...the ministers would make that decision” (Interviewee I)

Amending Procedure

The data in this regard point at reinforcing the five years period for monitoring.

“In terms of this actual document the main way is expected to be the five yearly review…The process that we follow at that time hasn't been worked out, it will need to be worked out with the government of the day” (Interviewee G);

“Yes, the five year process” (Interviewee H); and
“...this document is not a statutory document. There's nothing in the planning that says you have to have this document. But obviously there are statutory procedures for changing the urban growth boundary or for re-zoning land or whatever that's...standard legislation. And there's a... review... every five years or something” (Interviewee J)

WEBPAGE

Role

According to the interviewees the webpage has a role as:

“For us it's another method of access...People could lodge their feed back via the web, they could download documents” (Interviewee G);

“I think it's an accessible way for people to get information and to put comment in...So I think it's a good way to see information out there in the public arena” (Interviewee I);

“People could make feedback, it was used both to communicate outwards and to receive coming in” (Interviewee J); and

“I had quite high expectations about its use by the general public as a vehicle for people who might not get access to the main document or implementation plans otherwise. But I think that might have been a bit enthusiastic. It's things like the museum display and home shows and very popular things that really capture that broader public” (Interviewee G)

Articulation to the strategy

In relation to the webpage as part of the plan the data shows:

“Yes, all the way along we knew we wanted to have an electronic version as well” (Interviewee G);

“Yes, we designed it. We did a communications strategy right from the beginning, part of that was a web page which was kept up to date. It was advertised widely, we have an email list of people who were advised when things were happening, people have the opportunity. So it was an integral part of the whole plan was the web page” (Interviewee I); and

“Yes, that's very much part of the planning of the – lets say that that's with the marketing or publishing of this document, it was an integral part of this communications plan” (Interviewee J)

Vision of the webpage
This was not asked explicitly but interviewees answered in regards to the consultation process:

“How you get sufficient engagement. We just tried so many different things, you know, we had an exhibit at the museum and we, you know, we’d go along to home shows…Unless you – you know, you read things about devolved planning models where it’s electronic based and everyone can make a decision over the internet and therefore you have you know, like an election or something like that on a plan. Well, I think the days of that are long off and in the meantime I think it's really difficult” (Interviewee G); and

“So it's definitely going to become a bigger and bigger part of the way that we operate there's no doubt about that. But there are problems in that still not everybody has access to computers or the web or doesn't have access to, yes, the web or have slow modems. We know that there are some problems in the country just with the speed of downloading stuff. Anyway, so there are basic issues, I think, of equity here” (Interviewee J)

Connection between the webpage and the plan

In regards to the possible connection between the webpage and the plan, one Interviewee replied:

“If you've got feedback mechanisms coming in through the web it has to be – basically you've got to stay honest to whatever methods you're using. So, you know, we had feedback coming in from the web, it was no different from a piece of information coming in through a consultation phase or through a letter, it was equivalent for us” (Interviewee G)

Webpage feedback administrator

The idea here is to find out who, in terms of occupation, should administer the feedback (i.e. planner, communicator, IT).

“So the web technicians’ job was to make the web site technically run, all the content was the responsibility…of the project team” (Interviewee I);

“In terms of the technical requirements, the technical people. In terms of processing the content of the information, yes, it should be the same people that processed the written material” (Interviewee G); and

“Well, I think the people who are running the particular projects…I mean, we're planners and we're public servants so it's our duty, if you like, to report as appropriate to ministers” (Interviewee J)

Assessment procedure of the feedback

This topic relates on how the feedback is (not) included in the plan document.
“No different to any other source...we'd look at the information, the ideas, respond to it, put it in the database, so all that” (Interviewee I); and

“The same as for information coming from anywhere else. So, you know, for us we happened to structure our team into different topic experts and then those experts would come together to ensure the integration” (Interviewee G)
THE WESTERN AUSTRALIAN STATE SUSTAINABILITY STRATEGY

THE PLANNER AND THE PLAN

According to the interviewees the key features of the W.A.S.S.S are:

- “Comprehensiveness and its attempt to go across all levels of government” (Interviewee B)

- “It is both, a long term set of guiding principles and an action plan”; second, “it does take seriously the social and stretches people into thinking about what that could mean, in an internationally significant way” (Interviewee A)

- “Identifies Sustainability as an overarching approach” (Interviewee C)

- “It is about configuring the system to work towards sustainability, not necessarily defining the sustainable outcome because it is going to be embedded in the different sectors” (Interviewee C)

In regards to things that could be improved, a planner mentioned: “my sense of this whole thing is that although the document itself is relatively progressive and probably a little bit new by comparison to what other jurisdictions are dong in Australia and perhaps internationally as well, it is still a first generational document so the next generation with sustainability strategy, I suspect, will be a lot more informed by those sorts of issues to do with the role of monitoring, recording against the document, the integration with status sustainability recording, possibly the use of forecasting and backcasting as techniques that might inform future versions and the like” (Interviewee B)

When the planners were asked to describe what would they improve in the document, the data shows the conviction for the planners to consider this plan not as a final product but as part of the process, which will spark more documents to come: “A document is a static thing so that it exists at a single point in time and becomes ...not of out of date but that new ideas are emerging which would be great to launch onto" (Interviewee B). Another planner stated: “The strategy has a two year life, which immediately admits that…it’s an ongoing thing” (Interviewee A).

The data also shows how adaptability has to be built into the strategy due to the nature of the information (i.e. societal/environmental). “We made a very strong point that flexibility had to be built into it and that meant an adaptation to change and a recognition that change is something that is inbuilt into processes (Interviewee A).

Another interviewee said: “The document acknowledges that there is a whole area of emerging stuff that still needs to happen with industry and other stakeholders. So that by setting up processes for that to happen the document has discrete actions but it also has actions which will enable other processes to occur over time” (Interviewee B).
SUSTAINABLE DEVELOPMENT

In this section of the results the aim is to record the concept/notion of sustainable development used on the planning process and in the plan document. This will set a starting point, which permits a posterior comparison between the set concept and the potential emergent areas. Therefore this section will explore some relevant elements of sustainable development for the strategy, such as: a) definition of sustainable development; b) operationalisation of S.D; c) balance between economy, society, environment; d) public participation; and e) learning.

j) Definition of sustainable development

In this case a particular definition for sustainable development was developed. The definition stresses the idea of integration of elements rather than just inclusion of them. From a formal perspective this definition was engaged in a semantic discussion, for example replacing “simultaneous” for “integration”.

“Sustainability is meeting the needs of current and future generations through an integration of environmental protection, social advancement and economic prosperity.” WASSS pg. 12

k) Operationalisation of S.D

This strategy developed eleven principles in regards to sustainability (seven foundation principles and four process principles). They were used as a benchmark in each of the six sections of the strategy: Sustainability and Governance, Contributing to Global Sustainability, Sustainable Natural Resource Management, Sustainability and Settlements, Sustainability and Community, and Sustainability and Business.

In terms of factual operationalization, a planner stated: “In many cases we avoid using absolute values because I think one of the most interesting things about the sustainability agenda is that the more we learn about it and the challenge of integrating those things the less we actually know about how to do that” (Interviewee B).

The difficulty of operationalizing S.D was also evident in the treatment of intergenerational considerations, “It’s a two sided coin really, how much does the current generation exploit for their own benefit now, and how much do we leave available…I don’t know that we have got models to work that out and I don’t think that sort of analysis underpins this” (Interviewee C).

Governance was also considered to be relevant for the implementing of the strategy. "I think the governance part is quite progressive, in the way it attempts to lay out future institutional arrangements, to embed sustainability into government decision making” (Interviewee B).

In regards to the implementation a planner stated that “it was a combination of setting centralised general direction and enabling flexibility at the agency level to interpret it and make sense of it” (Interviewee B).
l) Balance between economy, society and environment

The current WASSS was considered to be beyond the TBL due to its integrated thinking. “What might have been challenging for everybody is the more integrated philosophy…rather than the separate elements of the triple bottom line approach…” (Interviewee B)

In relationship to a Triple Bottom Line analysis (TBL), a planner stated “that’s from the nineties, that is not a 21st century concept” (Interviewee A). Further it was said: "We have an 11 bottom line, we had 11 principles" (Interviewee A); “every now and then we’d check back and say, how does this principle apply to government, to settlements, to natural resources?” (Interviewee A).

m) Public Participation

The general steps of the participation process can be generally mention as: issuing a topic discussion paper, receiving written submissions for the paper, issuing a Draft Sustainability Strategy, conducting a series of consultation seminars, receiving its written submission, and issuing the final strategy.

In terms of key ways to develop this element, “I would say that's number one process, touching people. It doesn't matter what technique you've got, if you are not touching people, doesn't matter…if you touch people's inner sense of who they are and where they're going as human beings then you are getting somewhere” (Interviewee A).

Public participation was also considered as a valuable resource. “You can’t actually do the thinking without it…we are going to get the public involved in this otherwise we'll never have the resources to solve this” (Interviewee A).

n) Learning as a technique (is it just public participation, what about scenarios?)

Relying on the public and the generation of ideas to participate in the planning process is crucial in the approach this strategy was done. "I don't think you can underestimate the value of people meeting and thinking together, that's in the end the very critical thing" (Interview A). Consequently, in order to create those spaces where this generation occurs the planners in this case developed an approach to work with the public that was based on the reflection of what each person is and his personal view of the world. "In order to make that connection you have to be able to get people together in a new and exciting way, where people are no longer fixed into those disciplinary or professional roles" (Interviewee A).

Public participation was not set as a formal process to maximize its effects, it was a process that was evolving within the strategy and a process, which increased its own relevance with time: “… it was a happening thing and one that we just had to keep the lines of communication open in a serious kind of way and just keep having lots of meetings” (Interviewee A).

This is not to say that the planners were not aware of its benefits. “…the process was deliberately designed to be fairly interactive so that we could garner the information
that people had in their heads and good suggestions that they had about how we should proceed. But part of those exercises is always about creating the learning opportunities for people as well so they...can keep it alive” (Interviewee B).

FUTURES

This section reports on the expected link between the tools (approaches, techniques, assumptions, considerations, in other words the starting milestones for futures analysis) used to deal with the future and the way the future is aimed at.

Vision

In setting this particular aim, the main process used to produce it was meetings and to refine it, feedback from the public was the main tool. “I have to say that there wasn't a lot of public interest in those vision statements really. Most people were mostly interested in the actions and the strategy and what we're actually going to have as a result of that. So we came up with what we thought were reasonable visions and other people informed them by their written submissions to us” (Interviewee B).

“We didn’t settle for a particular time, because our definition of sustainability is as much about a process as a destination…” (Interviewee B)

Techniques

In attempting to link the pragmatic learning process that occurred in the strategy with any technique, which potentially could be used to spark learning, there was not detailed recollection of this relationship: “…parts of the strategy might have that built into it inherently, I don’t think there was that level of futuristic planning associated with it in that way” (Interviewee B). In other case scenarios were used to determine the problems that would have to be faced depending on the followed path, due to the long-term nature of the strategy (Interviewee A).

In relation with the tools that deal with the future such as forecasting and backcasting, a planner stated: “forecasting is what we're basically trying to overcome because it is done as a simple projection…We basically would prefer backcasting…that's what sustainability does” (Interview A).

In relation to how techniques support the plan, a planner stated: "it might well have been that some of the sections were drafted with that sort of stuff in mind and others weren’t, but I don’t recall there being a very tightly controlled requirement that those sorts of techniques became part of the process of drafting or anything like that" (Interviewee B).

In relation to previous technical work and some degree of explanation about it, a planner said: “It will help understand where the information comes from, but there is an assumption made about relying on previous work, so no need to duplicate work” (Interviewee C)
Uncertainty

In this case the data illustrates two different arguments. In the first one the planners considered the future as uncertain “because a lot of this is based around the opportunities that exist for people to do things differently now, and we are uncertain about what those opportunities might be” (Interviewee B).

On the other hand, uncertainty was considered an implicit consideration in strategic plans. “I think it's more an unstated sort of assumption almost underneath that we know we are working with varying degrees of certainties and risks in a whole lot of areas” (Interviewee C). Although it was considered to be useful in decision-making, through the creation of awareness of the risks involve in each decision. This element is better considered for industrial area planning.

Uncertainty was suggested as a topic that might sparks learning: “The educative power of using a tiered sort of risk approach would be quite useful because people are making assumptions about an issue that is not necessarily informed by the facts, the trends or the risks” (Interviewee C).

Uncertainty is not explicitly considered in the plan but it was mentioned to be relevant for further analysis: “…if we are going to be guided by principles like intergenerational equity, for example, whether that be about environment, economy or whatever then, you know, the questions of certainty are quite significant” (Interviewee C).

TIME

Future Generations

When the interviewees were ask about the consideration of future generations, the term was considered to be obviously included. "Its implicit that the intergeneration element is considered…Certainly the language around the plan when it was released as a draft, as a final, was a plan…for our children and their children (Interviewee B). The planners also believe that if this characteristic is mentioned in the definition is enough: “the future generations are considered obviously in the sense of that it is really one of the underpinnings of sustainability” (Interviewee C).

The consideration of this characteristic was also used in the public participation process: “Where we could we dreamed and we tried to think about the long term future of future generations…I did tried to get people to think about their children and their grandchildren” (Interviewee A).

Cumulative Impacts

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions\(^4\).

\(^4\) www.i395-rt9-study.com/08_glossary.html
This was seeing as a technical issue: “I’m not sure we could say we did that because…one is looking at business, one at community, one at settlements, I don’t think they need that kind of cumulative approach” (Interviewee A). Another planner stated: “I don’t know whether the tools are around for people to be able to do accumulation of what all of the policies collectively would result in, in each component of the triple bottom line” (Interviewee C).

On the other hand one the planners stated that “cumulative approaches to the future are one of the key insights that help bring about sustainability and to undermine the reductionist approach which is bringing everything down to one piece of information”(Interviewee A).

This feature was also understood as situation where “Each section build up and in the end each layer needs to be seen in terms of the other one. So I suppose cumulative thinking works that way" (Interviewee A).

Plan Time Frame

The reason behind the scope of the strategy was “to give a sense that most of this we wanted to see done within 5 to 10 years. We didn’t want to think that this was all about things that our grandchildren had to do…The figure goes beyond the next year’s budget and beyond the next election" (Interviewee A).

Although, when sustainability was clearly used in the time frame the answer was “we didn’t settle for a particular time, because our definition of sustainability is as much about a process as a destination…” (Interviewee B).

Monitoring Time Frame

In terms of the reasons behind the scope of monitoring time frame it was found to be decided on “what sounds like a reasonable amount of time” (Interviewee B) and feasible (Interviewee A).

STRUCTURE OF THE PLAN

In relation to the role of the structure, a planner stated: “Some critics will, you know, find things in the semantic level that you can complain about but I think you've actually got to look at the heart of it and the substance of it and not worry too much about the way necessarily some things are expressed or structured” (Interviewee C)

Structure

The approach to develop this plan feature was divided in tasks:

“we should have for each section of the document some background information about the issue, some statement about what was already occurring within the government and flagging about what was going to happen next. So that we would have a vision statement, an objective or objectives, some
statement about the existing actions underway and then the future actions. At every section (indistinct) wanted to highlight the global opportunities that existed for each of those areas” (Interviewee B).

Another way of explaining the structure of the sections was:

“You could flick through and see a nice box which explains it, dramatises, tell a story and then you go In Short and say, that's the vision, the objectives, the actions underway…(these sections) are developed for fast learning” (Interviewee A).

In regards to an appreciation of a future structure of the plan, it was mentioned that “although the document itself is relatively progressive… it is still a first generational document so the next generation with sustainability strategy, I suspect, will be a lot more informed by those sorts of issues to do with the role of monitoring, recording against the document, the integration with status sustainability recording, possibly the use of forecasting and backcasting as techniques that might inform future versions and the like" (Interviewee B).

Difference with previous plans

This section explores the main differences between previous plans and the one under analysis. The comparison in this case is drawn in regards to purpose of the plan (i.e. land use plan).

- “We had land use plans…but we haven’t had an overall strategic vision for the state which brings together this new way of thinking. So it's entirely new” (Interviewee A)
- “I think they are trying to deal wit the same issues." This one is broader, and the previous one is more narrowed down to a land use planning context"

Strategy as a Package

The perception of this analogy was in relation to the presentation of the document. “A number of people said what you should do is produce separate documents for each of those six areas. It was rejected by almost everyone we showed it to, once you realise each of those sections builds on an links to the other" (Interviewee A). “There was a significant level of overlap between those different sections. So that in practice and to make the thing practical and readable we had to make it accessible in some way, shape or form and so we chose a focus on global issues, governance issues, natural resources and the like as ways to cut up a very complex sort of approach” (Interviewee B).

To develop that sense of integration this strategy used structural diagrams as ways of understanding how each sections fit in accordance to the whole document. It was also suggested that this diagrams support the idea of integration in a document.

“it did help me to understand that simple structural diagrams are very important to understanding where something goes. And the structure of the
document, if we wanted it to be integrated, had to have that sense to it, that each individual didn’t have to read the whole thing to get the whole story” (Interviewee A)

Strategy Comparison

In regard to this activity, several answers came forward:

“You've got to have options in that three year period but in the end you've got to get down and say that's what it means, for the next step, otherwise you don’t get anywhere” (Interviewee A).

“That's not the way government work. They want to be able to show they have made a decision at some point. We would have had much less impact on change if we had continued to say this or that could be done. We had to show that we had considered the options and that's the way we're going” (Interviewee A).

“No, just the one up and then people respond to that. Comparing is more for project level. We don’t use the alternatives left behind that much for analysis in our planning process” (Interviewee C).

Monitoring

This element, which by its own name supposes a process, was considered not full developed by this strategy. “A monitoring evaluation framework should be part of that exercise and developed at some point in the future rather than to do it in a way that was rushed and do it in a way that was possibly poorly thought through” (Interviewee B)

The other approach to monitoring, the one that is going to happen during implementation is the one emphasising in the agents. “So across government they are all working on a monitoring process that they will set up themselves…we will monitor the monitoring because it is very extensive…so monitoring will be spread back to those people who should be doing things” (Interviewee A).

Indicators were not used in this final version of the strategy. “It would have made it more comprehensive so long as they were done in a way that was consistent and that there was a commitment to actually measure them” (Interviewee B). Another planner stated “It would have been nice to have had (indicators)-for there to be left behind, to have left some indication, you know, some signposts, if you like, about what sort of indicators would be need to be developed. Because that connects your vision, principles, objectives, your actions and then your indicators. But you can tier things off for subsequent process” (Interviewee C).

“It essentially says it will happen every two years and it links it back to the process of monitoring, the state of sustainability report which will be essentially saying how we are going” (Interviewee A).
Appendix

Indicators

“In the final section we removed those because – particularly from strong lobbying from me because I was very concerned that they were not well thought through in the context of those sections and it was something that should be done in a much more considered manner at a time in the future” (Interviewee B)

Implementation

This process is based on two areas “one is that each agency will now go and do a sustainability action plan which will implement each of the items that they have to do, and go beyond; and second, the Sustainability Round Table was established and will implement the community and industry parts of it and that will be done through partnerships” (Interviewee A).

The role of other agents in implementing the strategy was made explicit by a planner through a systems idea: “It is reliant on individual agencies to do those actions for which they are responsible. The success of the whole depends on the sum of all its parts and hopefully the sum will be greater that the individual parts of that” (Interviewee B).

Feedback Information

One of the planners stated that “our internal process was to take those raw bits of information, analyse them by theme and generally against the structure of the document…and then arrived at a determination about how we would use it, if at all” (Interviewee B).

Two sources of feedback were mentioned: “one, we had peer review which was provided on the website, and second, we had individual submissions on the website. I have to said…it did change the document…” (Interviewee A).

WEBPAGE

Public Participation

As an introduction to the role of this tool, one of the planners commented on the usefulness of the Internet. “…we desperately needed information…they (students) would get it all from the web…they all wrote papers about that and we immediately put them on the website and people started pouring over the web as the papers came on. Not just WA public, but Australian public and international public. We got a grand to fund case studies... and they all got published on the web” (Interviewee A).

Arousing of the webpage

“I thought the document will be the main thing, but very early on it became clear that all of the background to what we were doing needed to be on the
website and it needed to provide a comprehensive rationale for what we were doing” (Interviewee A).

Role

According to the interviewees the webpage has a role as: “Awareness raising, informative, documentation, collect feedback” (Interviewee B). Even though it is used for feedback, there is still work to do if want to make it interactive and connected to the plan.

“It was a fairly accurate record of the interchange between the sustainability policy and the stakeholders, in terms of information coming into it” (Interviewee B).

“It (the webpage) was the main means of achieving that (feedback)” (Interviewee B).

There was also another type of significance of this role: “the web gave us that credibility, very important…This document would not have had anything like its political power or its ability to bring about change in industry or community if it hadn't ad the website” (Interviewee A).

Articulation to the strategy

“It was thought from the beginning but it was mainly thought as something that you provide, publicity and provide information but it became much more of a resource and a credibility document” (Interviewee A).

It was also stated that: “you can do it any more without it, it's very strategic now” (Interviewee A).

Within this element, I explore flexibility of the plan through the webpage. Using continuous feedback from the web to keep the plan constantly updated “requires an enormous amount of resources to service... the government will just obviously make it open for people to come in and register stuff. Now, whether you collect that – I mean, can you collect two years worth of commentary but we've got to define processes, we've got to do certain activities at certain points of time, we can't just have a – it's too hard to manage, like this is continually under review and continually being adapted. It really needs to be done in more – at the end of the day you can collect stuff and then you go through a formalised review and that's when you make the adjustments at that point. To try and do that continuously is too hard. We'd never get any work done” (Interviewee C).

Webpage feedback administrator

The idea here is to find out who, in terms of academic discipline, should administer the feedback (i.e. planner, communicator, IT). “The actual functional putting on the web was done by an IT person…but I needed to approve it first” (Interviewee A).

There were other specific answers such as: “A communicator would be useful, I don’t think we are at the stage right now of planning” (Interviewee B), and “you need the
expertise to know how to set it up so that it communicates…but then you also need to have people that have the content about the information informing that as well” (Interviewee C).

Assessment procedure of the feedback

Again this topic relates on who and how the feedback is (not) included in the plan document. “My procedure would be to refer that information to the sustainability round table, because they will be charged with reviewing the document in a couple of years…Because I don’t think the government will be spending a lot of time between now and then actually thinking about reviewing this document and to me the time would be better spent actually doing stuff” (Interviewee B).

Communication Strategy

This is an emergent element from this first part of the interviewees. The link between this element and the strategy is the webpage. “Communication strategy needs to be built on, which the increase in the use of computers, hence webpage” (Interviewee B).

This idea is also supported on the need of more feedback from the community. “That (a strategy that increases the users of computers and web pages… for feedback) would be certainly part of what the communication strategy would be looking at” (Interviewee B).

The media was mentioned as a factor, which can influence reaching more people (necessary in a democratic process like this), but its involvement in the strategy was marginal. “The media doesn’t deal well with things that are future looking for a start but also drives on …controversy…and this is not necessarily that controversial” (Interviewee B).